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MONOGRAPH

OF THE

LACERTIDÆ

BY

GEORGE ALBERT BOULENGER

LL.D., D.Sc., F.R.S.

VOLUME II

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PREFACE.

As was stated by Mr. Boulenger in his Introduction to the first volume, issued in May, 1920, the second and concluding volume was then ready for printing. He has since retired from the service of the Trustees, but he has corrected the proofs and prepared an index to the whole work.

C. Tate Regan,
Keeper of Zoology.

British Museum (Natural History),
London, S.W. 7.
November, 1921.

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MONOGRAPH

OF THE

LACERTIDÆ.

4. PHILOCHORTUS.

Latastia, part., Bouleng. Cat. Liz. iii, p. 54 (1887).

Philochortus, Matschie, Sitzb. Ges. Nat. Fr. Berl. 1893, p. 30; Bouleng. Proc. Zool. Soc. 1917, p. 145.

Head-shields normal, save for the occasional absence of the interparietal. Nostril pierced between two shields and bordered by the first upper labial or narrowly separated from it. Lower eyelid scaly, often more or less transparent in the middle. Collar well marked. Back with two to six longitudinal series of large plate-like scales; ventral plates feebly imbricate, with truncate posterior border, smooth. Digits more or less compressed, with smooth or keeled lamellar scales inferiorly. Femoral pores. Tail long, cylindrical.

Southern Arabia, Eritrea, Somaliland.

This genus differs from *Lacerta* and *Latastia* in the longitudinal series of enlarged plate-like scales on the back, an approximation to the condition in *Poromera*, *Tachydromus*, and *Holaspis*.

In all the species the parietal foramen is absent, and a few small teeth are usually present on the pterygoids.

The subdigital lamellæ vary according to individuals; they are usually smooth or with two series of obtuse tubercles; sometimes,

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however, the tubercles form obtuse keels, and in a female of *P. neumanni* there is a rather sharp keel along the middle. Steindachner has already observed that of the two types of *P. hardeggeri* one has the subdigital lamellæ distinctly keeled, whilst in the other the keels are scarcely indicated.

The species grouped under this genus thus afford another argument against the unnatural division of the Lacertidæ into two main groups, *Liodactyli* and *Pristidactyli*, according to the absence or presence of keels on the lower surface of the digits, which the state of things in *Psammodromus* and *Scaptira* had already led me to abandon.

Synopsis of the Species.

I. Dorsal plates smooth or very feebly keeled; interparietal usually absent or separated from the occipital by the parietals meeting in the middle; usually 4 upper labials anterior to the subocular; 11 to 15 femoral pores on each side.

30 to 46 dorsal plates and scales across the middle of the body; hind limb not reaching the ear; foot $1\frac{1}{3}$ to $1\frac{2}{3}$ times length of head . . . . . *P. spinalis*, Peters, p. 3.

28 or 30 dorsal plates and scales across the middle of the body; hind limb reaching the ear; foot $1\frac{3}{5}$ times length of head. *P. phillipsii*, Blgr., p. 5.

II. Dorsal plates more or less strongly, rarely feebly keeled; interparietal in contact with the occipital or separated from it by a small shield; usually 5 upper labials anterior to the subocular.

38 to 42 dorsal plates and scales across the middle of the body; 12 to 14 large keeled scales in a transverse series between the hind limbs; supraoculars in contact with the frontal; 29 to 34 gular scales in a longitudinal series; 14 to 16 femoral pores on each side; 33 to 35 lamellar scales under the fourth toe . . . . . *P. neumanni*, Matsch., p. 7.

33 to 40 dorsal plates and scales across the middle of the body; 12 to 18 large keeled scales in a transverse series between the hind limbs; supraoculars in contact with the frontal; 21 to 28 gular scales in a longitudinal series; 12 to 18 femoral pores on each side; 24 to 30 lamellar scales under the fourth toe . . . . . *P. intermedius*, Blgr., p. 9.

24 to 30 dorsal plates and scales across the middle of the body; 8 keeled plates in a transverse series between the hind limbs; supraoculars usually separated from the frontal by a series of granules; 25 to 28 gular scales in a longitudinal series; 11 to 13 femoral pores on each side; 25 to 31 lamellar scales under the fourth toe . . *P. hardeggeri*, Stdr., p. 12.

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1. PHILOCHORTUS SPINALIS.

Lacerta spinalis, Peters, Mon. Berl. Ac. 1874, p. 369, pl. —, fig. 2.

Latastia spinalis, Bouleng. Cat. Liz. iii, p. 57 (1887); Stejneg. Proc. U.S. Nat. Mus. xvi, 1894, p. 717; Bouleng. Ann. Mus. Genova (2) xvi, 1896, p. 551; Tornier, Zool. Jahrb., Syst. xxii, 1905, p. 375; O. Neumann, t.c., p. 395.

Philochortus spinalis, Bouleng. Proc. Zool. Soc. 1917, p. 146, pl. i, figs. 1, 2.

Head and body feebly depressed. Head $1\frac{1}{2}$ to $1\frac{3}{5}$ times as long as broad, its depth equal to the distance between the anterior corner of the eye and the tympanum, its length 4 to $4\frac{1}{3}$ times in length to vent; snout obtusely pointed, as long as postocular part of head, with obtuse canthus. Pileus twice as long as broad. Neck as broad as the head or a little narrower. Hind limb reaching the shoulder or between the shoulder and the ear in males, the axil or the shoulder in females; foot $1\frac{1}{3}$ to $1\frac{2}{5}$ times as long as hand; toes slender, feebly compressed. Tail 2 to $2\frac{1}{2}$ times as long as head and body.

Nostril pierced between 3 shields; nasals forming a suture behind the rostral, the suture $\frac{1}{3}$ to $\frac{2}{3}$ the length of the frontonasal, which is much broader than long and broader than the internarial space; prefrontals forming a short median suture; frontal as long as its distance from the end of the snout, $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as broad, angular in front, much narrower behind, not or but very feebly grooved in front; parietals $1\frac{1}{4}$ to $1\frac{1}{2}$ times as long as broad, usually meeting on the median line, the interparietal being small and separated from the occipital, or often altogether absent*; occipital small,† rarely in contact with the interparietal.‡ Two large subequal supraoculars, preceded and followed by a small one (first and fourth) often broken up into two or more small shields or granules, the first in contact with the frontal; 6 or 7 superciliaries, separated from the supraoculars by a series of granules. Lower eyelid opaque or somewhat translucid, with feebly enlarged scales in the middle, some of which are deeper than the others. Rostral not entering the nostril; a single postnasal; anterior loreal shorter than the second§; 4, rarely 5, upper labials anterior to the subocular, which is usually narrower beneath than

* Absent in the type specimen and in most of the 59 specimens from Ghinda examined by me. I was wrong in thinking the absence of this shield in the type specimen to be an individual anomaly.

† Divided into 2 in the type specimen.

‡ In 2 female specimens from Rugdeia Sogheira in the Genoa Museum.

§ Absent in the type specimen.

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above. A long, narrow upper temporal, usually in contact with the fourth supraocular, followed by one or two small shields; upper temporal scales small and granular or hexagonal, lower larger; a more or less distinct tympanic shield.

4 pairs of chin-shields, first two or three in contact in the middle; 21 to 29 gular scales between the symphysis of the chin-shields and the median collar-plate, granular in front, gradually or abruptly enlarged and imbricate behind, those of the last row often as large as the plates of the collar; no gular fold. Collar with strongly serrated edge, composed of 6 to 10 plates.

Scales granular on the nape; 2, 4, or rarely 6 rows of hexagonal plates along the back, usually smooth, sometimes very feebly keeled; these plates rather small and usually merging gradually into the granular, flat, smooth or obtusely keeled scales on the sides; 30 to 46 plates and scales across the middle of the body. Ventral plates in 6 longitudinal and 27 to 32 transverse series, the border of the transverse series notched between the plates, the median pair of which is narrower than the others. Preanal plates small and irregular, or two median enlarged.

11 to 15 femoral pores on each side. 27 to 30 lamellar scales under the fourth toe.

Caudal scales forming alternately longer and shorter whorls, upper oblique, rather strongly and diagonally keeled, rounded or obtusely pointed behind, lower feebly keeled, basals smooth; 21 to 28 scales in the fourth or fifth whorl behind the postanal granules.

Young dark brown or black on the body, with 6 yellowish white longitudinal streaks; the median pair bifurcating on the nape, the outer branch extending to the superciliary edge, and uniting on the base of the tail; the upper lateral streak from the eye to the tail, passing above the tympanum, the lower from the upper lip to the thigh, passing through the tympanum and above the fore limb, reappearing on the back of the thigh; upper surface of head pale brown, with or without distinct mottling; upper surface of fore limb pale brown, the shields dark-edged, of hind limb brown with round white spots; lower parts white; tail coral-red. These markings may entirely disappear in the adult, or the dark spaces between the light streaks may be replaced by longitudinal series of dark brown or black spots on a yellowish brown ground.

Measurements (in millimetres):

	1.	2.	3.	4.
From end of snout to vent . . .	55	49	58	52
„ „ „ fore limb . .	19	17	18	18

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	1.	2.	3.	4.
Length of head	12	12	12	12
Width of head	7	7	7	7
Depth of head	6·5	6	6	6
Fore limb	19	17	18	17
Hind limb	34	31	32	31
Foot	17	16	17	16
Tail	—	122	135	123

1. ♂, Rugdeia Sogheira. 2. ♂, Ghinda. 3. ♀, Rugdeia Sogheira. 4. ♀, Ghinda.

Particulars of Specimens Examined.

		1.	2.	3.	4.	5.	6.	7.
♂	Rugdeia Sogheira, Adal	55	34	29	8	26	13–12	29
♀	„ „ „ G.M.	58	35	30	6	21	14	27
„	„ „ „ „	45	40	30	7	22	13	29
♂	Ghinda	53	34	29	9	21	14–15	30
„	„	49	33	27	9	24	12	27
„	„	49	37	29	7	22	14–15	28
♀	„	55	37	32	8	29	15	29
„	„	52	38	32	7	22	12	28
„	„	47	36	32	7	25	13	28

1. Length to vent (in millimetres). 2. Plates and scales across middle of body. 3. Transverse series of ventral plates. 4. Plates in collar. 5. Gular scales in a straight line between symphysis of chin-shields and median collar-plate. 6. Femoral pores (right and left). 7. Lamellar scales under fourth toe. Same explanation for the following tables.

Habitat.—Eritrea. The type specimen is from Bogos.

I have examined the type and one specimen from Adal in the Berlin Museum, 2 from Rugdeia Sogheira, and 59 from Ghinda.

2. PHILOCHORTUS PHILLIPSII.

Latastia phillipsii, Bouleng. Ann. & Mag. N. H. (7) ii, 1898, p. 131.

Philochortus phillipsii, Bouleng. Proc. Zool. Soc. 1917, p. 148, pl. i, figs. 3, 4.

Head and body rather depressed. Head about $1\frac{1}{2}$ times as long as broad, its depth equal to the distance between the centre of the eye and the tympanum, its length a little more than 4 times in length to vent; snout obtusely pointed, as long as postocular part of head, with obtuse canthus. Pileus twice as long as broad. Neck a little narrower than the head. Hind limb reaching the ear-opening; foot $1\frac{1}{2}$ to $1\frac{3}{5}$

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times as long as head; toes slender, compressed. Tail $2\frac{1}{2}$ to $2\frac{3}{4}$ times as long as head and body.

Nostril pierced between 3 shields; nasals forming a suture behind the rostral, the suture $\frac{1}{3}$ to $\frac{1}{2}$ the length of the frontonasal, which is much broader than long and broader than the internarial space; prefrontals forming a short median suture; frontal as long as its distance from the end of the snout, nearly twice as long as broad, angular in front, much narrower behind, feebly grooved; parietals $1\frac{1}{3}$ times as long as broad, meeting on the median line between the narrow or very small interparietal and the small, triangular occipital. 4 supraoculars, first small, divided into two and in contact with the frontal, second and third large and subequal, fourth small and sometimes divided into two; 5 or 6 superciliaries, separated from the supraoculars by a series of granules. Lower eyelid transparent in the middle, with feebly enlarged scales, some of which are deeper than the others. Rostral not entering the nostril; a single postnasal; anterior loreal shorter than second; 4 upper labials anterior to the subocular, which is a little narrower beneath than above. A long, narrow upper temporal, in contact with the fourth supraocular, followed by two small shields; upper temporal scales small and granular, lower large; a distinct tympanic shield.

4 pairs of chin-shields, first three in contact in the middle; 21 gular scales in a straight median line, granular in front, gradually enlarged and imbricate towards the collar, which is formed of 9 plates.

Scales flat, granular on the nape, subimbricate and smooth or faintly keeled on the body, with the two series on the spine much enlarged and plate-like, hexagonal and twice as broad as long; 28 or 30 plates and scales across the middle of the body. Ventral plates in 6 longitudinal and 26 transverse series, the border of the transverse series notched between the plates, the median pair of which is narrower than the others. Two enlarged preanal plates, one in front of the other, with smaller plates anteriorly and laterally.

13 femoral pores on each side. 27 to 30 lamellar scales under the fourth toe.

Caudal scales forming alternately somewhat longer and shorter whorls, upper oblique, rather strongly keeled, obtusely pointed behind; 20 scales in the fourth or fifth whorl.

Young dark brown above, with 5 yellowish longitudinal streaks, the median bifurcating on the nape, each branch extending to the middle of the posterior border of the parietal shield; the lateral streaks occupying the same position as in *P. spinalis*. Adult grey above, with 3 lemon-yellow longitudinal streaks, the median forked on the nape,

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and with crowded black dots forming a band from the temple to above the hind limb; limbs speckled with black. Lower parts white. Tail red in the young.

Measurements (in millimetres):	♂
From end of snout to vent	42
„ „ „ fore limb	16
Length of head	10
Width of head	6
Depth of head	5
Fore limb	16
Hind limb	29
Foot	16
Tail	114

This species is known from two specimens obtained at Berbera, Somaliland, by Mr. E. Lort Phillips. Distinguished from the preceding by the longer foot and by the light streaks being in odd number on the body.

3. PHILOCHORTUS NEUMANNI.

Philochortus neumanni, Matschie, Sitzb. Ges. Nat. Fr. Berl. 1893, p. 30; Bouleng. Proc. Zool. Soc. 1917, p. 150, pl. ii, fig. 1.

Latastia neumanni, Anders. Proc. Zool. Soc. 1895, p. 643, pl. xxxvii, fig. 1; Steind. Denkschr. Ak. Wien lxix, 1901, p. 330.

Latastia hardeggeri, part., Anders. Proc. Zool. Soc. 1901, ii, p. 145.

Head and body feebly depressed. Head about $1\frac{2}{3}$ times as long as broad, its depth equal to the distance between the centre of the eye and the tympanum, its length 4 to $4\frac{1}{2}$ times in length to vent; snout obtusely pointed, as long as postocular part of head, with obtuse canthus. Pileus twice as long as broad. Neck as broad as the head or a little narrower. Hind limb reaching the collar or between the collar and the ear; foot $1\frac{2}{5}$ to $1\frac{1}{3}$ times as long as head; toes slender, compressed. Tail $2\frac{1}{4}$ to nearly 3 times as long as head and body.

Nostril separated from the upper labial and the postnasal by a narrow rim*; nasals forming a suture behind the rostral, the suture $\frac{1}{4}$ to $\frac{1}{2}$ the length of the frontonasal, which is much broader than long and broader than the internarial space; prefrontals forming a short median suture; frontal as long as its distance from the end of the snout, $1\frac{2}{3}$ to 2 times as long as broad, angular in front, narrower behind, not grooved; parietals $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as broad;

* Exactly as in *Lacerta perspicillata*.

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interparietal small, usually separated from the occipital by a small shield. 4 supraoculars, first small and usually in contact with the frontal, second and third large and subequal, fourth small and sometimes broken up into two or three; 6 or 7 superciliaries, separated from the supraoculars by a series of granules. Lower eyelid somewhat transparent, with feebly enlarged scales in the middle, some of which are deeper than the others. Rostral not entering the nostril; a single postnasal; anterior loreal shorter than the second; 5, rarely 4,* upper labials anterior to the subocular, which is a little narrower beneath than above. A long, narrow upper temporal, usually in contact with the fourth supraocular, followed by one or two small shields; temporal scales mostly hexagonal, very small above, larger beneath; a narrow, curved tympanic shield.

5 pairs of chin-shields, first three in contact in the middle; 29 to 34 gular scales in a straight line in the middle, granular in front, gradually or abruptly enlarged and imbricate towards the collar; no gular fold. Collar with strongly serrated edge, composed of 7 to 10 plates.

Scales granular and smooth on the nape, rhombic, juxtaposed or subimbricate, and obtusely keeled on the body; 4 or 6 series of hexagonal plates along the back, more or less strongly keeled; 38 to 42 plates and scales across the middle of the body.† 12 or 14 large keeled scales in a transverse series between the hind limbs. Ventral plates in 6 longitudinal and 28 to 31 transverse series, the border of the transverse series feebly notched between the plates, the median pair of which is narrower than the others. Preanal plates small and irregular, or two large and median, or three large, forming a triangle.

14 to 16 femoral pores on each side. 33 to 35 lamellar scales under the fourth toe.

Caudal scales in alternately somewhat longer and shorter whorls, upper oblique, strongly and diagonally keeled, rounded or obtusely pointed behind, lower keeled; 26 to 30 scales in the fourth or fifth whorl behind the postanal granules.

Brown to blackish above, with six yellowish white streaks, two along the back, diverging on the nape, and two on each side, the upper from behind the eye to the base of the tail, passing above the tympanum, the lower from the upper lip, through the tympanum and above the fore limb, to the base of the thigh; the dark band between the two light lateral streaks sometimes spotted with whitish; upper

* In the female from Mt. Manif.

† Anderson's count—47—is taken higher up the body.

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surface of head and limbs pale brown; lower parts white; tail pale brown above, yellowish beneath, orange-red distally in the young.

Measurements (in millimetres):

	1.	2.	3.
From end of snout to vent . .	73	82	80
,, ,, ,, fore limb .	29	29	28
Length of head	18	19	18
Width of head	11	12	11
Depth of head	9·5	10	9
Fore limb	26	30	26
Hind limb	48	53	47
Foot	25	28	25
Tail	205	190	200

1. ♂, Mt. Manif. 2. ♀, Mt. Manif. 3. ♀, Lahej.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.
♂ Mt. Manif . . .	73	38	30	7	33	15–16	34
♀ ,, . . .	82	38	29	7	29	14	34
Hgr. ,, . . .	50	39	28	9	34	15	34
♀ Lahej . . .	80	42	31	8	31	16	33
Hgr. ,, ...	53	40	30	10	32	14–15	35

The type specimen, preserved in the Berlin Museum, has been compared with the specimens from Lahej.

Habitat.—This species is only known from South-Western Arabia inland of Aden, specimens having been obtained at Lahej and in the Wadis below Mt. Manif, near Lahej.

4. PHILOCHORTUS INTERMEDIUS.

Latastia hardeggeri (non Steind.), Bouleng. Ann. & Mag. N. H. (7) ii, 1898, p. 130.

Latastia hardeggeri, part., Anders. Proc. Zool. Soc. 1901, ii, p. 145.

Philochortus intermedius, Bouleng. Proc. Zool. Soc. 1917, p. 152. pl. ii, figs. 2, 3.

Head and body rather depressed. Head $1\frac{2}{5}$ to $1\frac{2}{3}$ times as long as broad, its depth equal to the distance between the anterior corner or the centre of the eye and the tympanum, its length 4 to $4\frac{1}{3}$ times in length to vent in males, $4\frac{1}{3}$ to 5 times in females; snout obtusely pointed, as long as postocular part of head, with obtuse canthus. Pileus 2 to $2\frac{1}{4}$ times as long as broad. Neck as broad as the head or a little narrower. Hind limb reaching the elbow or the axil in

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females, the axil, the shoulder, or the collar in males; foot $1\frac{1}{3}$ to $1\frac{1}{2}$ times as long as head; toes slender, compressed. Tail 2 to $2\frac{3}{4}$ times as long as head and body.

Nostril separated from the upper labial and the postnasal by a narrow rim; nasals forming a suture behind the rostral, the suture $\frac{1}{3}$ to $\frac{2}{3}$ the length of the frontonasal, which is broader than long and broader than the internarial space; prefrontals forming a short median suture; frontal as long as its distance from the end of the snout or a little shorter, $1\frac{2}{3}$ to 2 times as long as broad, angular or rounded in front, narrower behind, not or but feebly grooved; parietals $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as broad; interparietal 2 to 3 times as long as broad, in contact with the occipital, which is usually broader and about half as long. 4 supraoculars, first small and sometimes broken up into 2 or 3, as often as not in contact with the frontal, second and third large and equal or second a little longer, fourth small and usually broken up into 2 or 3; 6 or 7 superciliaries, separated from the supraoculars by a complete series of granules, or first in contact with the first and second supraoculars. Lower eyelid somewhat transparent, with feebly enlarged scales in the middle, some of which may be deeper than the others. Rostral not entering the nostril; a single postnasal; anterior loreal shorter than the second; 5, rarely 4* upper labials anterior to the subocular, which is narrower beneath than above. A long, narrow upper temporal, usually in contact with the fourth supraocular, usually followed by one or two small shields; temporal scales very small and granular above, much larger beneath; a curved tympanic shield.

4 pairs of chin-shields, sometimes followed by a small fifth, first three in contact in the middle; 21 to 28 gular scales in a straight line in the middle, granular in front, gradually or abruptly enlarged and imbricate towards the collar; no gular fold. Collar with strongly serrated edge, composed of 7 to 10 (exceptionally 4) plates.

Scales granular and smooth on the nape, rhombic and keeled on the body; 2 or 4 series of hexagonal plates along the back, more or less strongly keeled, rarely faintly keeled; 33 to 40 plates and scales across the middle of the body; 12 to 18 large keeled scales in a transverse series between the hind limbs. Ventral plates in 6 longitudinal and 27 to 32 transverse series (27 to 30 in males, 30 to 32 in females), the border of the transverse series feebly notched between the plates, the median pair of which is narrower than the others. Preanal plates small and irregular, or two or three enlarged ones in the middle, in a longitudinal series, or three forming a triangle.

* 4 in two specimens only.

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12 to 18 femoral pores on each side. 24 to 30 lamellar scales under the fourth toe.

Caudal scales in alternately somewhat longer and shorter whorls, upper oblique, strongly and diagonally keeled, rounded or obtusely pointed behind, lower keeled; 24 to 28 scales in the fourth or fifth whorl behind the postanal granules.

Young black on the upper surface of the body, with 6 yellow streaks, the median pair diverging towards the occiput, to embrace an additional pair of short streaks, or each streak bifurcating just before reaching the occiput; the upper lateral streak extends from behind the eye to the base of the tail, passing above the tympanum, the lower from the upper lip, through the tympanum and above the fore limb, to the thigh; head and upper surface of fore limbs brown, hind limbs and tail coral-red, throat and belly white. These markings may persist more or less distinct in the adult, which vary much in colour; the blackish bands between the light streaks may be much spotted with whitish, or broken up into spots, or the upper parts may be grey, brown or reddish with 7 blackish longitudinal streaks (9 behind the occiput), or merely with two series of blackish spots on each side. Tail often reddish towards the end.

Measurements (in millimetres):

	1.	2.	3.	4.	5.
From end of snout to vent	71	68	56	85	53
,, ,, ,, fore limb	27	25	20	25	17
Length of head	18	17	13	17	11
Width of head	11	11	8	12	7
Depth of head	9	8	6·5	9	6
Fore limb	24	24	18	26	16
Hind limb	42	42	29	45	29
Foot	22	23	16	25	15
Tail	175	180	145	200	—

1. ♂, Wagga. 2, 3. ♂, Berbera. 4, 5. ♀ (gravid), Berbera.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.
♂ Wagga	76	40	30	9	28	16–14	26
,, ,,	71	34	29	9	27	18–17	30
,, ,,	52	36	28	7	24	14	27
♀ ,,	57	38	30	7	26	14–16	27
♂ Berbera	43	34	27	9	22	12	28
,, Inland of Berbera	68	40	28	9	27	16	29
,, ,,	68	37	29	9	25	16–15	27

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		1.	2.	3.	4.	5.	6.	7.
♂	Inland of Berbera	56	36	29	11	25	14	28
,,	,,	55	39	29	8	25	15–14	27
,,	,,	55	36	28	10	24	14–15	24
,,	,,	53	36	29	4	23	14	28
,,	,,	53	34	28	8	23	14–13	26
,,	,,	51	40	27	9	26	13	29
♀	,,	85	36	30	7	25	14–15	26
,,	,,	85	37	32	8	26	16–15	29
,,	,,	80	36	30	9	24	15–14	28
,,	,,	75	37	30	9	25	16–15	29
,,	,,	71	39	31	10	28	17–16	30
,,	,,	67	40	30	9	24	15	28
,,	,,	58	34	30	9	25	14	27
,,	,,	55	39	31	8	23	13	28
,,	,,	53	33	30	10	21	15–13	25
,,	,,	51	36	30	8	23	14–13	29

Habitat.—Northern Somaliland at and near Berbera.

5. PHILOCHORTUS HARDEGGERI.

Latastia hardeggeri, Steind. Ann. Hofmus. Wien, vi, 1891, p. 371, pl. xi; Bouleng. Zool. Rec. 1893, Rept. p. 23; Tornier, Zool. Jahrb., Syst. xxii, 1905, p. 375.

Eremias heterolepis, Boettg. Zool. Anz. 1893, pp. 115, 193.

Latastia degeni, Bouleng. Ann. & Mag. N. H. (7) xi, 1903, p. 55.

Philochortus hardeggeri, Bouleng. Proc. Zool. Soc. 1917, p. 154, pl. ii, figs. 4, 5.

Head and body rather depressed. Head about $1\frac{1}{2}$ times as long as broad, its depth equal to the distance between the anterior corner or the centre of the eye and the tympanum, its length $4\frac{1}{3}$ to 5 times in length to vent; snout pointed, as long as postocular part of head, with rather sharp canthus. Pileus $1\frac{3}{4}$ to 2 times as long as broad. Neck as broad as the head or a little narrower. Hind limb reaching the shoulder, the collar, or between the collar and the ear; foot $1\frac{2}{5}$ to $1\frac{3}{5}$ times as long as head; toes slender, compressed. Tail $2\frac{2}{5}$ to $3\frac{1}{4}$ times as long as head and body.

Nostril between three shields, or separated from the upper labial and the postnasal by a narrow rim; nasals forming a suture behind the rostral, the suture $\frac{1}{4}$ to $\frac{2}{3}$ the length of the frontonasal, which is much broader than long, and broader than the internarial space; prefrontals forming a short median suture; frontal as long as its

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distance from the end of the snout or a little shorter, $1\frac{1}{3}$ to $1\frac{2}{3}$ times as long as broad, angular or rounded in front, narrower behind, distinctly grooved; parietals $1\frac{1}{4}$ to $1\frac{1}{3}$ times as long as broad, in contact with the upper postocular; interparietal extremely narrow, in contact with or narrowly separated from the very small occipital.* Two large supraoculars, subequal or anterior the shorter, entirely surrounded by a series of granules,† of which larger ones represent the first and fourth supraoculars; 5 or 6 superciliaries. Lower eyelid somewhat transparent, with feebly enlarged scales in the middle, some of which may be deeper than the others. Rostral not entering the nostril; a single postnasal; anterior loreal shorter than second; 5 upper labials anterior to the subocular, which is narrower beneath than above. A long, narrow upper temporal, followed by a shorter shield; temporal scales very small and granular above, much larger beneath; a small curved tympanic shield usually present.

4 pairs of chin-shields, first three in contact in the middle; 25 to 28 gular scales in a straight line in the middle, granular in front, gradually or abruptly enlarged and imbricate towards the collar; no gular fold. Collar with strongly serrated edge, composed of 7 or 8 plates.

Scales granular and smooth behind the occiput, rhombic, subimbricate, and keeled on the body; 4 or 6 series of hexagonal, strongly keeled plates along the back, 8 between the hind limbs. 24 to $28\frac{+}{+}$ plates and scales across the middle of the body. Ventral plates in 6 longitudinal and 27 to 30 transverse series, the border of the transverse series feebly notched between the plates, the median pair of which is narrower than the others. Preanal plates small and irregular, or one enlarged.

11 to 13 femoral pores on each side. 25 to 31 lamellar scales under the fourth toe.

Caudal scales in nearly equal whorls, upper oblique, strongly and diagonally keeled, pointed and more or less distinctly mucronate behind, lower keeled, except the basals; 22 to 28 scales in the fourth or fifth whorl behind the postanal granules.

Young black above with five yellowish white longitudinal streaks, the median bifurcating on the nape, the two laterals as in the preceding species; head and limbs brown above, hind limbs with round white spots; throat and belly white, lower surface of hind limbs and tail coral-red. Adult brown above, with a more or less distinct yellow vertebral streak,

* A small shield between the interparietal and the occipital in one young specimen.

† In one of the two type specimens described by Steindachner the circle of granules is incomplete, the supraoculars being in contact with the frontal.

‡ 30 in the type of *Eremias heterolepis*, according to Boettger.

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bifurcating on the nape and extending some way down the tail, each of the dorsal plates with a small blackish spot; sides of body pale greyish brown, with a series of large blackish spots or bars: lower parts white.

Measurements (in millimetres):

	1.	2.	3.
From end of snout to vent	70	70	56
,, ,, ,, fore limb	23	24	19
Length of head	14	14	13
Width of head	10	9	8
Depth of head	7	8	6
Fore limb	22	22	18
Hind limb	42	38	34
Foot	22	21	18
Tail	180	170	155

1. ♂, Berbera. 2. ♀, Berbera. 3. ♀, Mandah (type of *L. degeni*).

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.
♂ Berbera	70	24	27	7	25	11	26
♀ ,,	70	26	30	7	28	11	25
,, ,,	65	26	28	7	28	12–13	28
,, Mandah	56	24	30	7	26	11	31

Habitat.—Northern Somaliland. The type specimens, preserved in the Vienna Museum, are from between Hensa and Artu.

This species is distinguished from the two preceding by the lower number of plates and scales across the body, and by the nearly constant presence of a series of granules between the supraoculars and the frontal; also by the light vertebral streak.

5. LATASTIA.

Latastia, Bedriaga, Ann. Mus. Genova, xx, 1884, p. 307; Lataste, *op. cit.* (2), ii, 1885, p. 125.

Latastia, part., Boulenger, Cat. Liz. iii, p. 54 (1887).

Apathya, Méhely, Természet. Közlön, Budapest, lxxxv, 1907, p. 26, and Ann. Mus. Hung. vii, 1909, p. 426.

Head-shields normal. Nostril pierced between three to five shields and bordered by the first upper labial or narrowly separated from it. Lower eyelid scaly, a trans-

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parent disc, if present, formed of several scales. Collar well marked. Dorsal scales small and juxtaposed or rather large, imbricate, and graduating into the caudals; ventral plates not or but feebly imbricate, with truncate or straight posterior border, smooth. Digits feebly compressed, with keeled lamellar scales inferiorly. Femoral pores. Tail long, cylindrical.

South-western Asia, North-eastern and Tropical Africa.

All the species have retained the parietal foramen, and the pterygoid teeth are absent or reduced to a few. There are two superposed postnasals, or even three in some specimens of *L. cappadocica*.

This genus forms a connexion between *Lacerta* and *Acanthodactylus* and falls into two principal groups, or sections, which appear to have been derived independently from two sections of the genus *Lacerta*, as mentioned in dealing with *L. cappadocica*, the unique representative of *Apathya*, regarded as generically distinct by Méhely.

Méhely has attached a great importance to the number of keels under the digits in separating *Apathya* from *Latastia*, but the distinctive character would not hold good in the genera *Acanthodactylus* and *Ophiops*, where I find a great variation in the keels in specimens of *A. vulgaris* and *O. microlepis*, some having a single median keel on the subdigital lamellæ, others two or three. The keels also vary according to the species in the genus *Eremias* in the sense in which it is usually taken.

Synopsis of the Species.

I. Latastia, s. str. Lower eyelid opaque; frontal grooved, at least anteriorly; subdigital lamellæ bicarinate.

A. Dorsal scales not larger than the laterals, much smaller than the basal caudals, 25 to 40 in a transverse series between the hind limbs.

1. 39 to 52 scales across the middle of the body; no group of small plates in the middle of the pectoral region.

a. Dorsal scales sharply keeled.

No gular fold; edge of collar serrated; 13 to 16 femoral pores on each side . . . . . *L. johnstonii*, Blgr., p. 16.

A gular fold; edge of collar even; 10 to 14 femoral pores on each side . . . . . *L. siebenrocki*, Torn., p. 19.

b. Dorsal scales not sharply keeled.

Scales feebly but very distinctly keeled; 9 to 11 plates in the collar; 12 to 14 femoral pores on each side . *L. burii*, Blgr., p. 20.

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Scales smooth or very obtusely keeled; 6 to 8 plates in the collar; 10 or 11 femoral pores on each side. *L. boscæ*, Bedr., p 22.

Scales feebly but very distinctly keeled; 5 to 8 plates in the collar; 8 or 9 femoral pores on each side. *L. wachei*, Wern., p. 24.

2. 52 to 80 scales across the middle of the body, usually 55 to 65, more or less strongly keeled; a group of small irregular plates usually present in the middle of the pectoral region; 5 to 16 femoral pores on each side . . . . . *L. longicaudata*, Reuss, p. 25.

B. Dorsal scales larger than the laterals, gradating into the caudals, 45 to 52 across the middle of the body; 7 to 11 femoral pores on each side . . . *L. carinata*, Peters, p. 32.

II. Apathya, Méhely. Lower eyelid with a transparent disc formed of 6 to 8 scales; frontal not grooved; subdigital lamellæ unicarinate; dorsal scales granular and smooth, 67 to 74 across the middle of the body; 19 to 25 femoral pores on each side . . . . . *L. cappadocica*, Wern., p. 34.

1. LATASTIA JOHNSTONII.

Latastia johnstonii, Boulenq. Ann. & Mag. N. H. (7) xix, 1907, p. 392; Sternf. Mitt. Zool. Mus. Berl. v, 1911, p. 417.

Eremias nitida (non Günth.), Hewitt & Power, Tr. R. Soc. S. Afr. iii, 1913, p. 156.

Latastia kirdwelli, Boulenq. Tr. R. Soc. S. Afr. v, 1919, p. 39.

Body moderately depressed. Head rather depressed, $1\frac{1}{2}$ to $1\frac{3}{4}$ times as long as broad, its depth equal to the distance between the centre of the eye and the tympanum, its length $3\frac{3}{4}$ to $4\frac{1}{4}$ times in length to vent in males, $4\frac{1}{3}$ to $4\frac{1}{2}$ times in females; snout obtusely pointed, as long as postocular part of head, with sharp canthus and vertical, grooved loreal region. Pileus $1\frac{1}{5}$ to $2\frac{1}{4}$ times as long as broad, the shields often rather rugose. Neck as broad as the head. Hind limb reaching the shoulder or the collar in males, the axil or the shoulder in females; foot $1\frac{1}{3}$ to $1\frac{1}{2}$ times as long as the head; toes slender, compressed. Tail 2 to $2\frac{2}{3}$ times as long as head and body.

Nostril pierced between 3 or 4 shields, the nasal sometimes forming a narrow rim separating it from the first upper labial; nasals forming a suture behind the rostral, the suture $\frac{1}{3}$ to $\frac{2}{3}$ the length of the frontonasal, which is much broader than long and broader than the internarial space; prefrontals forming a median suture, sometimes with a small azygos shield between them; frontal as long as or a little shorter or a little longer than its distance from the end of the snout, $1\frac{1}{2}$ to 2 times as long as broad, rounded in front, much narrower behind, grooved along

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the anterior $\frac{2}{3}$ or throughout; parietals $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as broad, usually more or less emarginate on the side for the accommodation of the first upper temporal; interparietal narrow, 2 to 3 times as long as broad, 2 to 3 times as long as the occipital, from which it is often separated by a small shield. 4 supraoculars, first small or divided into 2 or 3, in contact with the frontal, second and third large, equal, fourth small or divided into small shields or granules, 6 superciliaries, separated from the supraoculars by a complete series of granules. Lower eyelid opaque, with vertically enlarged scales in the middle. Rostral not entering the nostril; 2 superposed postnasals; anterior loreal $\frac{1}{3}$ to $\frac{1}{2}$ the length of the second; 5 or 6 upper labials (exceptionally 4) anterior to the subocular, which is much narrower beneath than above and sometimes has the lower portion detached to form an additional shield; a large upper temporal, sometimes followed by a second smaller shield; temporal scales granular; a very narrow tympanic shield.

4 pairs of chin-shields, and a very small fifth, first three in contact in the middle; 25 to 31 scales in a straight line between the symphysis of the chin-shields and the median collar-plate, granular in front, increasing in size and imbricate towards the collar; no gular fold. Collar with strongly serrated edge, composed of 7 to 10 plates.

Scales strongly keeled, granular on the nape, rhombic and feebly imbricate on the body, larger and sometimes smooth towards the ventral plates, 39 to 52 across the middle of the body, 25 to 35 in a transverse series between the hind limbs. Ventral plates with the postero-inner angle obliquely truncate, in 8 longitudinal series, those of the median pair much narrower than those next to them, the outermost very narrow; 23 to 26 transverse series in males, 26 to 29 in females. Usually two large preanal plates, one before the other; sometimes three, one in front and two behind or the reverse, with smaller plates or scales around them; sometimes all small and the median in pairs.

A series of 7 or 8 large transverse plates under the forearm. Scales on upper surface of tibia keeled, smaller than dorsals. 13 to 16 femoral pores on each side. Subdigital lamellæ bicarinate, 22 to 25 under the fourth toe.

Caudal scales more or less distinctly in alternately longer and shorter whorls, upper oblique, truncate, strongly and diagonally keeled, lower less strongly keeled; 26 to 30 scales in the fourth whorl behind the postanal granules.

Two black, light-edged streaks along the back; a black vertebral streak on the nape, sometimes continued down the whole length of the

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body ; sides of neck and body with numerous irregular vertical black bars, crossed by two whitish streaks from behind the eye, the upper passing above the tympanum, to the tail, where they are separated by a dark band ; blue spots sometimes present on the sides, between the black bars. Lower parts white.

The female specimen from Eldorado, Southern Rhodesia, is brown above, with 8 light streaks on the neck in front and 7 behind, these streaks more indistinct on the body ; series of black spots between them on the sides.

Measurements (in millimetres) :

	1.	2.	3.	4.	5.
From end of snout to vent . . .	60	47	62	53	48
„ „ „ fore limb . .	20	18	20	19	17
Length of head	14	12	14	12	11
Width of head	8	7	8	7	7
Depth of head	6·5	6	7	6	6
Fore limb	17	16	18	16	15
Hind limb	34	30	33	28	27
Foot	19	17	19	16	15
Tail	160	120	120	115	—

1. ♂, Nyika Plateau (type). 2. ♂, Masuka Plateau (type). 3–4. ♀, Morogoro. 5. ♀, Eldorado (type of *L. kirdwelli*).

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.
♂ Nyika Plateau, Nyassaland (type) . . .	60	50	25	9	29	15	22	5
„ Masuka Plateau, Nyassaland (type) . . .	48	52	26	7	31	15–16	23	6–5
„ Morogoro, E. Africa, **N.M.**	53	47	23	8	27	15–16	24	5–6
„ „ „ „ .	51	51	26	7	29	15	25	5
„ „ „ „ .	51	48	24	8	28	15	24	5
„ „ „ .	47	50	25	7	27	14	24	5
♀ „ „ .	62	47	29	8	27	15–14	24	6
„ „ „ .	57	48	28	8	29	15	23	5-6
„ „ „ **N.M.**	57	46	29	8	26	14	23	5-6
„ „ „ „ .	57	47	27	8	27	16	24	5
„ „ „ .	53	39	28	8	27	14	22	5–4
„ „ „ **N.M.**	49	46	29	8	28	14	23	5
„ Eldorado, S. Rhodesia (type of *L. kirdwelli*), **McG. M.** . . .	48	42	26	10	25	13–14	23	5

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1. Length to vent (in millimetres). 2. Scales across middle of body. 3. Transverse series of ventral plates. 4. Plates in collar. 5. Gular scales in a straight series between the symphysis of the chin-shields and the median collar-plate. 6. Femoral pores (right and left if differing in number). 7. Lamellar scales under fourth toe. 8. Upper labials anterior to the subocular.

This explanation applies also to the tables given for the other species of the genus.

Habitat.—This species was originally described from two male specimens from Nyassaland, altitude about 2000 metres, presented to the British Museum by Sir Harry Johnston. It has since been recorded by Sternfeld from Portuguese East Africa. I have recently examined 16 specimens collected by Mr. A. Loveridge at Morogoro in ex-German East Africa. This series shows that the lizard from Southern Rhodesia which I described as *L. kirdwelli* cannot be regarded as more than a colour-variation of *L. johnstonii*.

2. LATASTIA SIEBENROCKI.

Eremias siebenrocki, Tornier, Zool. Jahrb., Syst. xxii, 1905, p. 386.
Latastia siebenrocki, Nieden, Mitt. Zool. Mus. Berl. vii, 1913, p. 77.

Apparently closely allied to *L. johnstonii* and similar to it in the shields round the nostril. Snout elongate and rather pointed. Hind limb reaching the axil.

Frontonasal about as long as broad or broader than long; frontal longitudinally grooved; interparietal about twice as long as broad, sometimes separated from the occipital by a small shield. 4 supraoculars, all in contact with the frontal; 6 superciliaries. 5 upper labials anterior to the subocular, which is but little narrowed inferiorly. Two elongate upper temporals; temporal scales granular, lower larger; a large tympanic shield. A gular fold; collar even-edged, composed of 8 plates.

Dorsal scales narrow, sharply keeled, 40 to 48 across the middle of the body. Ventral plates in 8 longitudinal series, outer small, median pair not narrower than the others; 28 to 32 transverse series. Two large preanal plates, one in front of the other. 10 to 14 femoral pores on each side. Caudal scales all strongly keeled.

Brown above, with darker streaks bearing black transverse spots; a white streak from the outer corner of the parietal to the base of the tail, where it unites with its fellow; two white lateral streaks, the upper from the eye, touching the upper border of the ear-opening, to the tail, the lower, from the upper lip to the thigh, passing above the shoulder.

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Habitat.—The type in the Berlin Museum is from Porto Novo, Slave Coast, Guinea; other specimens referred to the same species have been obtained on the Eldame River and at Tabora, East Africa.

Appears to be well distinguished from *L. johnstonii* by the presence of a gular fold, the even-edged collar, the shape of the frontonasal shield, and the arrangement of the light streaks.

The lizard from the Brussa Valley, north of Lake Stephanie, described as *Eremias neumanni* by Tornier, t. c. p. 376, appears to differ only in having 2 supraoculars instead of 4. The following is an abstract of the original description:

Snout rather pointed, nasals not swollen. Nostril between three shields, a nasal and two postnasals, the lower of which does not reach the rostral; nasals in contact with each other behind the rostral; frontonasal broader than long; prefrontals forming a median suture; a deep groove along the frontal; interparietal 1½ times as long as broad, separated from the occipital by a small shield. Two large supraoculars, preceded and followed by small scales, and separated from the superciliaries by a series of granules. 5 or 6 upper labials anterior to the subocular, which is but little narrower beneath and borders the mouth. Two elongate upper temporals.

5 pairs of chin-shields, the two anterior in contact in the middle. A distinct gular fold. Collar free, formed of 10 plates.

Scales sharply keeled, pointed, subimbricate, 46 across the body. Ventral plates in 8 straight longitudinal and 26 transverse series. Two rather large preanal plates, one in front of the other. 11 femoral pores on each side. Caudal scales strongly keeled.

The hind limb reaches the collar. Tail more than twice as long as head and body.

Back greyish brown with black spots; a white dorsolateral streak, uniting with its fellow on the base of the tail; two white lateral streaks, broken up into spots on the body, the upper from behind the eye, bordering the tympanum above, the lower from the upper lip, bordering the tympanum below; a black band between these two streaks, bearing 8 blue spots.

The type is preserved in the Berlin Museum.

3. LATASTIA BURII.

Latastia burii, Bouleng. Ann. & Mag. N. H. (7) xix, 1907, p. 393.

Body much depressed. Head much depressed, flat above, nearly twice as long as broad, its depth equal to the distance between the posterior corner of the eye and the tympanum, its length 4 times in

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length to vent; snout acutely pointed, as long as postocular part of head, with sharp canthus and vertical, grooved loreal region. Pileus $2\frac{1}{3}$ times as long as broad. Neck broader than the head. Hind limb reaching between the collar and the ear; foot $1\frac{1}{3}$ times as long as the head; toes slender, compressed. Tail twice as long as head and body.

Nostril pierced between 4 shields; nasals forming a suture behind the rostral, the suture $\frac{1}{2}$ the length of the frontonasal, which is broader than long and broader than the internarial space; prefrontals forming a median suture; frontal as long as its distance from the end of the snout, $1\frac{2}{3}$ times as long as broad, angular in front, much narrower behind, grooved in front; parietals $1\frac{3}{4}$ times as long as broad; interparietal $1\frac{1}{2}$ times as long as broad, separated from the very small occipital by a small shield. Two large equal supraoculars, the first and fourth broken up into 2 or 3 small shields, the first in contact with the frontal; 6 superciliaries, separated from the supraoculars by a complete series of granules. Lower eyelid opaque, with a series of vertically enlarged scales in the middle. Rostral not entering the nostril; 2 superposed postnasals; anterior loreal not quite half as long as second; 5 or 6 upper labials anterior to the subocular, which is much narrower beneath than above. 3 or 4 upper temporals, first narrow and elongate and in contact with the disintegrated fourth supraocular; temporal scales granular, smaller than dorsals; a very narrow tympanic shield.

4 pairs of chin-shields, first three in contact in the middle; 29 or 30 gular scales between the symphysis of the chin-shields and the median collar-plate, granular in front, increasing in size and subimbricate towards the collar; no gular fold. Collar with very feebly serrated edge, composed of 9 to 11 plates.

Scales granular on the nape, hexagonal, juxtaposed, feebly keeled on the body, 42 to 45 across the middle of the body, 32 in a transverse series between the hind limbs. Ventral plates scarcely overlapping, with nearly straight posterior border, in 6 or 8 longitudinal and 23 to 25 transverse series; the plates of the two median series not or but little narrower than the others. A large preanal plate, with a smaller one in front of it.

A series of 7 large transverse plates under the forearm. Scales on upper surface of tibia similar to the dorsals. 12 to 14 femoral pores on each side. Subdigital lamellæ bicarinate, 24 or 25 under the fourth toe.

Caudal scales in subequal whorls, upper oblique, truncate, strongly and diagonally keeled, lower, in the basal part of the tail, smooth; 26 scales in the fourth or fifth whorl.

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Bluish grey in front, pale reddish brown behind; 3 black streaks along the nape and two on each side of the postocular part of the head and of the neck, the lower passing through the tympanum; the median nuchal and the two lateral streaks continued on the body, fading to reddish-brown behind. Lower parts white.

Measurements (in millimetres):

From end of snout to vent	52
,, ,, ,, fore limb	19
Length of head	13
Width of head	7
Depth of head	4
Fore limb	16
Hind limb	32
Foot	17
Tail	105

This species is known from two male specimens obtained by Mr. G. W. Bury near Berbera, Somaliland (altitude under 100 m.).

It comes nearest to *L. boscæ*.

4. LATASTIA BOSCÆ.

Latastia boscai, Bedriaga, Ann. Mus. Genova, xx, 1884, p. 322; Boulenger, Cat. Liz. iii, p. 56 (1887), and Ann. Mus. Genova (3) v, 1912, p. 330.

Body rather depressed. Head rather strongly depressed, $1\frac{3}{4}$ to nearly 2 times as long as broad, its depth equal to the distance between the centre of the eye and the tympanum, its length 4 to $4\frac{1}{2}$ times in length to vent; snout pointed, as long as postocular part of head, with sharp canthus and vertical, grooved loreal region. Pileus 2 to $2\frac{1}{2}$ times as long as broad. Neck as broad as head. Hind limb reaching the axil or the collar; foot $1\frac{1}{3}$ times as long as the head; toes slender, compressed. Tail 2 to $2\frac{3}{4}$ times the length of head and body.

Nostril pierced between 4 shields; nasals forming a suture behind the rostral, the suture $\frac{1}{2}$ to $\frac{2}{3}$ the length of the frontonasal, which is broader than long and broader than the internarial space; prefrontals forming a median suture; frontal as long as its distance from the rostral or from the end of the snout, $1\frac{1}{2}$ times as long as broad, rounded in front, much narrower behind, grooved in its anterior half; parietal $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as broad; interparietal 2 to $2\frac{1}{2}$ times as long as broad; occipital $\frac{1}{3}$ or barely $\frac{1}{2}$ as long as the interparietal, from which it may be separated by a small shield. 4 supraoculars,

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first small, divided into two, and in contact with the frontal, second and third equal, fourth small and sometimes divided into two; 7 superciliaries, separated from the supraoculars by a complete series of granules. Lower eyelid opaque, with slightly enlarged scales in the middle. Rostral not entering the nostril; 2 superposed postnasals; anterior loreal half as long as the second; 5 or 6 upper labials anterior to the subocular, which is much narrower beneath than above. 2 or 3 upper temporals, first narrow and elongate and in contact with the fourth supraocular, or separated from it by a granule; temporal scales granular, smaller than largest dorsals; a distinct, narrow tympanic shield.

4 pairs of chin-shields, first three in contact in the middle; 27 to 31 gular scales between the symphysis of the chin-shields and the median collar-plate, granular in front, increasing in size and imbricate towards the collar; no gular fold. Collar with feebly serrated edge, composed of 6 to 8 plates.

Scales granular on the nape, oval or oval-hexagonal on the body, obtusely keeled on the posterior part of the body, larger and smooth towards the ventrals, 42 to 46 across the middle of the body, about 30 in a transverse series between the hind limbs. Ventral plates with the postero-inner angle obliquely truncate, in 6 longitudinal series, those of the median pair much narrower than the others; 25 to 28 transverse series. Preanal plate moderately large, bordered by a semicircle of small plates.

A series of 6 large transverse plates under the forearm. Scales on upper surface of tibia small, strongly keeled. 10 or 11 femoral pores on each side. Subdigital lamellæ bicarinate, 24 or 25 under the fourth toe.

Caudal scales in equal whorls, upper oblique, truncate, strongly and diagonally keeled, lower smooth; 26 to 32 scales in the fourth whorl.

The type specimens are pale brown above, with three dark brown longitudinal streaks and, on each side, two broader black bands originating behind the eye, the upper sometimes extending to the nostril after passing through the eye; the lateral bands separated by a yellowish streak; flanks black with a series of round yellowish spots. The specimen from Dolo in the British Museum is uniform pale brown above, with a dark brown lateral band. Lower parts white.

Measurements (in millimetres):

	1.	2.	3.
	♂.	♀.	♀.
From end of snout to vent . .	50	50	48
,, ,, ,, fore limb .	21	19	19

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	1. ♂.	2. ♀.	3. ♀.
Length of head	12	11	12
Width of head	7	6·5	7
Depth of head	5	4·5	5
Fore limb	17	16	16
Hind limb	32	27	31
Foot	16	14	16
Tail	100	103	130

1, 2. Types. 3. Dolo.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.
♂ Cheran, Bogos (type), **G.M.**	50	42	26	8	28	10	25	6–5
♀ Rugdeia Sogheira, Bogos (type), **G.M.** . . .	50	46	28	7	31	10–11	24	6
♀ Dolo, Somaliland . .	48	44	25	6	27	10	24	5

Habitat.—Originally described from Eritrea (Adal and Bogos countries), this lizard has since also been found in Somaliland at Dolo.

L. boscæ differs from *L. burii* in the less strongly depressed head, the more convex and less distinctly keeled dorsal scales, the uneven border of the transverse series of ventral plates, the presence of a single large preanal plate, and the lower number of femoral pores.

5. LATASTIA WACHEI.

Latastia wachei, Werner, Jahrb. Hamb. Wiss. Anst. xxx, 1913, p. 16.

Apparently very similar to *L. boscæ*. Hind limb reaching to midway between the collar and the ear-opening. Tail $2\frac{1}{4}$ times as long as head and body.

Frontal feebly grooved in front; a small shield sometimes separates the interparietal from the occipital; first supraocular divided into two; upper temporal single or divided into three or four; 6 anterior upper labials. 5 to 8 plates in the collar. Scales obtusely but very distinctly keeled, 39 to 42 across the middle of the body. Ventral plates in 6 longitudinal series, of nearly equal width, and 24 transverse series. A large preanal plate bordered by a semicircle of smaller plates, or two, one in front of the other. 8 or 9 femoral pores on each side.

Greyish brown above, with or without four darker dorsal streaks,

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and with more or less distinct dark vertical bars on the sides; a white streak from the eye to the shoulder, passing above the tympanum, then broken up into round spots, and disappearing half-way down the body; a second series of larger round white spots from below the tympanum to a little beyond the shoulder. Lower parts white.

Measurements (in millimetres):

From end of snout to vent	45
Length of head	11
Width of head	6·5
Fore limb	15
Hind limb	27
Tail	102

This lizard is only known to me from Werner's description of three specimens from the Dire-Dana district and Harrar, in Abyssinia.

Werner compares it to *L. johnstonii* and *L. burii*, but it seems to me, from the description, to be nearer *L. boscæ*, and I am even doubtful whether it deserves to be specifically separated from it.

6. LATASTIA LONGICAUDATA.

Lacerta longicaudata, Reuss, Mus. Senck. i, p. 29 (1834).

Lacerta samharica, Blanf. Zool. Abyss. p. 449, fig. (1870).

Lacerta sturti, Blanf. op. cit. p. 452, fig.

Eremias revoili, Vaill. Miss. Révoil Pays Çomal., Rept. p. 20, pl. iii, fig. 2 (1882).

Latastia doriai, Bedriaga, Ann. Mus. Genova, xx, 1884, p. 313.

Latastia doriai, var. *martensi*, Bedriaga, t. c. p. 316.

Latastia samharica, Bedriaga, t.c. p. 319.

Latastia longicaudata, Boulenger, Cat. Liz. iii, p. 55 (1887); Ann. Mus. Genova (2) xii, 1891, p. 7. Proc. Zool. Soc. 1895, p. 535, Ann. Mus. Genova (2) xvi, 1896, p. 551, and xvii, 1896, p. 17; Anders. Zool. Egypt, Rept. p. 143, pl. xix (1898); Steind. Denkschr. Ak. Wien, lxix, 1900, p. 329; Anders. Proc. Zool. Soc. 1901, ii, p. 144; Tornier, Zool. Jahrb., Syst. xxii, 1905, p. 373; O. Neumann, t. c. p. 393; Werner, Sitzb. Ak. Wien, cxvi, i, 1907, p. 1844; Pellegr. Bull. Mus. Paris, 1909, p. 413; Sternf. in Schubotz, Wiss. Ergebn. Deutsch. Z. Afr. Exped. iv, p. 223 (1912); Werner, Jahrb. Hamb. Wiss. Anst. xxx, 1913, p. 42; Barbour, Proc. Biol. Soc. Washingt. xxvi, 1913, p. 146.

Body feebly depressed. Head feebly depressed, $1\frac{1}{2}$ to $1\frac{3}{4}$ times as long as broad, its depth equal to the distance between the anterior corner or the centre of the eye and the tympanum, its length 4 to $4\frac{1}{3}$ times in length to vent in males, 4 to $4\frac{1}{2}$ times in females; snout

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narrow, obtusely pointed, a little longer than the postocular part of the head, with sharp canthus and nearly vertical, concave loreal region. Pileus $2\frac{2}{5}$ to $2\frac{2}{3}$ times as long as broad. Neck as broad as or broader than the head. Hind limb reaching the shoulder, the collar, between the collar and the ear, or, rarely, the ear; foot $1\frac{1}{4}$ to $1\frac{3}{5}$ times as long as the head; toes slender, feebly compressed. Tail rather flattened at the base, 2 to a little over 3 times the length of head and body.

Nostril pierced between 3 or 4 shields, the nasal sometimes forming a narrow rim separating it from the upper labial; nasals forming a suture behind the rostral, the suture $\frac{1}{2}$ to $\frac{1}{5}$ the length of the frontonasal, which is broader than long and broader than the internarial space; prefrontals forming a median suture; frontal as long as its distance from the rostral or from the end of the snout, $1\frac{1}{2}$ to 2 times as long as broad, rounded in front, narrow behind, grooved in its anterior half or $\frac{2}{3}$; parietals $1\frac{1}{2}$ to $1\frac{3}{4}$ times as long as broad, lateral border sometimes slightly emarginate in front for the accommodation of the anterior temporal; interparietal $1\frac{1}{3}$ to $2\frac{1}{2}$ times as long as broad, often separated from the occipital by one or two small shields, rarely* by the parietals meeting in the middle; occipital small, $\frac{1}{4}$ to $\frac{1}{2}$ the length of the interparietal, sometimes a little broader. Of the 4 supraoculars the first, which is always in contact with the frontal, and the fourth are nearly constantly divided into 2 to 7 small plates or granules; second and third large, second often a little longer than third; 6 or 7, rarely 5, 8 or 9 superciliaries, separated from the supraoculars by a complete series of granules. Rostral not entering the nostril; 2 superposed postnasals; anterior loreal $\frac{1}{4}$ to $\frac{1}{2}$ the length of the second; usually 6 upper labials, sometimes 5 or 7, rarely 4 or 8, upper labials anterior to the subocular, which is much narrower beneath than above. Lower eyelid opaque,† with a series of vertically enlarged scales in the middle. A long and narrow, more or less distinctly keeled upper temporal, rarely divided into two, followed by one, two or more small shields, in contact with the fourth supraocular; temporal scales very small and granular above, larger beneath; a distinct tympanic shield; exceptionally 3 to 5 projecting scales form a denticulation in front of the ear-opening.

4 or 5 pairs of chin-shields, the first three in contact in the middle; 28 to 47 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate; no gular fold. Collar with strongly serrated edge, composed of 7 to 14 plates, usually 10 to 12.

* Male from Lugh, half-grown from Abu Ushar.

† Bedriaga says of his *L. doriæ*, var. *martensi*, "Das untere Augenlid ist meistens durchsichtig," but I am unable to confirm this statement from the specimens at my disposal.

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Scales granular on the nape, larger, oval-hexagonal or rhombic, juxtaposed, and obtusely or more or less strongly keeled* on the body, the scales a little larger and smooth towards the belly; 52 to 80 scales across the middle of the body, usually 55 to 65, 28 to 40 in a transverse series between the hind limbs. Ventral plates overlapping, with the postero-inner angle obliquely truncate, in 6, rarely 8, longitudinal series, the plates sometimes nearly equal in the 6 series, sometimes increasing in width from the median to the outer; if in 8 series, the outer plates small; 25 to 33 transverse series, usually 26 to 29 in males, 29 to 31 in females; a group of 5 to 29 small irregular plates usually present in the middle of the pectoral region. Males usually with an enlarged preanal plate, about twice as broad as long, with numerous small plates in front and on the sides; females with the preanal region covered with small irregular plates.

A series of 6 to 9 large transverse plates under the forearm, sometimes divided into two series. Scales on upper surface of tibia rhombic, keeled, usually smaller than dorsals. 5 to 16 femoral pores on each side, the reduction in the number taking place from the distal end, the series often restricted to the basal third or half of the thigh.† Subdigital lamellæ bicarinate, 22 to 28 under the fourth toe, usually 23 to 27.‡

Caudal scales in subequal or alternately somewhat longer and shorter whorls, upper rather oblique and diagonally and strongly keeled, truncate behind, lower smooth on the basal part of the tail; 30 to 38 scales in the fourth or fifth whorls behind the small postanal scales.

The coloration varies enormously. The ground colour varies from pale grey to brown, reddish-brown or brick-red. Some specimens are handsomely marked with dark and light shades and spots or bars, others are of a pale greyish sand-colour, with all the markings much effaced. There may be four narrow light streaks on the upper surface of the neck and body, the outer proceeding from the superciliary edge, and two broader light streaks on each side, the upper originating behind the eye, passing above the tympanum, and extending to the base of the tail, the lower from the upper lip, passing through

* The degree of carination varies considerably, irrespective of other characters, the keels being often more feeble in females than in males; the most obtuse keels are found in a female from Joba, Abyssinia, which, in this respect, hardly differs from *L. boscæ*.

† This striking range of variation is nearly paralleled in *Eremia lineo-ocellata*.

‡ A specimen from Sheik Othman, near Aden, with 32, stands perfectly isolated; but no other specimens are known from that locality to connect with the lower numbers, 25 to 28, recorded from El Kubar, also in S.W. Arabia.

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the tympanum and above the fore limb to the thigh, on the posterior side of which it reappears and is continued on the base of the tail. These light streaks may be broken up into regular series of spots, either on the back and sides or only on the sides, where they may be separated by narrow blackish bars; series of black spots may run between them, as well as a series of blue, black-edged ocelli between the two lateral streaks, or they may be crossed on the back and sides by more or less regular, straight or wavy blackish bars. Very frequently there is a dark brown or black vertebral streak, extending from the occiput to the base of the tail, or disappearing or broken up into a series of spots on the posterior part of the body. In other specimens there is no trace of either light or dark longitudinal streaks, and the back is irregularly spotted or reticulated with brown or black, and the sides of the head, neck and body are barred with black and white or bluish grey. A dark band usually runs along the side of the tail.

The following description of fresh specimens of the typical form from the African littoral of the Red Sea is given by Anderson:

"Olive-brown above, variegated with reddish brown. A rich, dark brown, narrow vertebral line from the occiput to the base of the tail, and three rich reddish longitudinal, but more or less interrupted bands external to it, marked at intervals with brown spots and forming vertical brownish bars on the sides of the body and neck, enclosing bluish and yellow interspaces, which assume the form of ocelli. Sides of the head also more or less marked with vertical bars, and likewise the upper labials. Sides of the tail yellowish, with a dusky longitudinal band. Under surfaces white. Males much more brilliantly coloured than the females."

O. Neumann mentions a half-grown specimen from Modjo, Somaliland, in which the back is uniformly red, as in the so-called variety *erythronota* of *Lacerta agilis*.

Measurements (in millimetres):

	1.	2.	3.	4.	5.	6.	7.	8.	9.
From end of snout to vent .	94	103	107	83	85	74	100	74	86
„ „ „ fore limb	39	38	43	34	34	31	38	31	33
Length of head . . .	23	23	24	20	21	19	24	18	19
Width of head	14	14	14	12	13	12·6	16	11	12
Depth of head	12	12	13	10	11	10	12	9	10
Fore limb	32	31	34	29	28	24	32	25	26
Hind limb	63	59	62	53	52	45	63	50	49
Foot	31	30	32	25	25	24	33	27	24
Tail	290	270	—	250	205	—	320	210	195

1. ♂, Durrur. 2. ♀, Suakin. 3. ♂, Samhar Coast (type of *L. samharica*). 4. ♀, Komayli Pass (type of *L. sturti*). 5. ♂,

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Rugdeia Sogheira (type of *L. doriæ*). 6. ♂, Keren (type of *L. doriæ*, var. *martensi*). 7. ♂, Sheikh Othman. 8. ♂, El Kubar. 9. ♀, El Kubar.

I have stated above that the femoral pores number from 5 to 16 on each side—a most unusual range of variation, which gives rise to suspicion that two or more species are included in this definition. Bedriaga has long ago proposed to separate the specimens with 5 to 8 pores (*L. doriæ*, Bedr. = *revoili*, Vaill.) from those with 11 or 12 (*L. samharica*, Blanf. = *longicaudata*, Reuss), but specimens with 9 or 10 pores have since been found to fill up the gap between the supposed species, and it is now known that the pores vary between 9 and 13 in individuals from the same locality. The character which was thought to go hand in hand with the reduced number of pores, viz. the small irregular plates on the pectoral region, believed to be 6 to 13 as against a lower number in the specimens with 11 or 12 pores, proves to be worthless, as I count from 6 to 29 in the specimens with 5 to 8 pores and 5 to 24 in those with 9 or more (6 to 18 in the specimens from Suakin and Durrur). As I have been unable to find any characters either in the scaling or in the markings to support the distinction based on the femoral pores, I must retain the species in the comprehensive sense indicated by the above synonymy. Yet the range of variation in the femoral pores is certainly restricted according to localities, as shown by the series from the African littoral of the Red Sea, the inland districts of Eritrea, S.W. Arabia, and Somaliland; and although there is no gap in the number of pores between 5 and 16, a tabulation of the material at my disposal shows the numbers 6, 12 and 15 to be culminating points which establish a discontinuous variation.

Number of pores	.	5	. 6 cases.
,, ,,	.	6	. **28** ,,
,, ,,	.	7	. 19 ,,
,, ,,	.	8	. 13 ,,
,, ,,	.	9	. 8 ,,
,, ,,	.	10	. 13 ,,
,, ,,	.	11	. 15 ,,
,, ,,	.	12	. **22** ,,
,, ,,	.	13	. 5 ,,
,, ,,	.	14	. 3 ,,
,, ,,	.	15	. **4** ,,
,, ,,	.	16	. 2 ,,

The three types thus indicated may be recognised as ill-defined varieties. There remains some difficulty with regard to the specimens

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from the southernmost extremity of the range (Gallaland and East Africa): as, from my own counts and those of Sternfeld, the pores number 8 to 10, 9 being the most frequent number, I place them provisionally under the var. *revoili*.

Forma typica (*L. longicaudata*, Reuss, *samharica*, Blanf., *sturti*, Blanf.). 9 to 14 femoral pores on each side, usually 10 to 12; 31 to 41 gular scales; 23 to 27 lamellar scales under the fourth toe.—Sinaitic Peninsula, African Coast of the Red Sea, Abyssinia, Senegal, Northern Nigeria and Lake Chad district.

Var. *andersonii*, Blgr. (*L. longicaudata*, And. 1901). 14 to 16 femoral pores on each side; 43 to 47 gular scales; 26 to 32 lamellar scales under the fourth toe.—S.W. Arabia.

Var. *revoili*, Vaill. (*L. doriæ*, Bedr.). 5 to 10 femoral pores on each side, usually 6 to 9; 28 to 48 gular scales; 22 to 27 lamellar scales under the fourth toe.—Inland districts of Eritrea, Eastern Sudan, Abyssinia, Somaliland, Gallaland, British East Africa.

These definitions will probably have to be modified when a larger number of specimens have been examined, and it is possible that the division into varieties, as here proposed, will have to be abandoned. But they express correctly, I think, the present state of our knowledge.

Particulars of Specimens Examined.

	Forma typica.	1.	2.	3.	4.	5.	6.	7.	8.
♀	Durrur, N. of Suakin .	94	63	29	13	40	12–13	26	6
,,	,, ,, .	94	60	26	12	39	12	27	6
,,	,, ,, .	94	60	29	13	38	10–12	27	7
♀	,, ,, .	98	58	30	10	35	11	26	6
,,	,, ,, .	97	62	31	10	34	12	27	6
,,	,, ,, .	95	55	31	11	39	10	26	7–6
♂	Suakin	110	59	29	10	32	12	26	6–7
,,	,, ...	105	55	30	11	35	10	24	6–7
,,	,, ...	105	64	29	10	37	10–9	26	7–6
,,	,, ...	100	57	28	11	31	11	23	6
,,	,, ...	98	58	29	9	35	12	26	6–7
,,	,, ...	98	60	27	10	36	11	23	6–5
♀	,, ...	103	62	30	10	41	13	26	6
,,	,, ...	68	56	29	10	41	12–11	26	6–5
♂	Sinkat, nr. Suakin . .	90	65	27	12	36	11	25	6
♀	Shendi, Egypt. Sudan .	98	57	31	10	35	12	24	7
,,	,, ,, ,, .	90	52	30	12	34	12–11	23	6
♂	Samhar Coast, Eritrea (type of *L. samharica*) .	107	58	28	12	33	11	26	7–6
,,	,, ,,	93	59	28	9	37	10–11	27	6

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	1.	2.	3.	4.	5.	6.	7.	8.
♀ Komayli Pass, Eritrea (type of *L. sturti*) .	83	61	28	14	38	12	25	5
♂ Obok, **P.M.** . . .	95	80	29	15	40	14	25	6–5
♀ „ „ . . .	96	58	29	11	40	12	26	5
„ „ „ . . .	94	64	28	11	31	12–11	25	5–6
Hgr. Obbia-Berbera, Somaliland	55	52	30	9	36	13–12	27	6
♂ Dungass, French Sudan, **P.M.**	63	56	26	8	34	12–11	26	6
„ Katagum, N. Nigeria .	70	55	30	7	35	12–11	25	6
Var. *andersonii.*								
♂ Sheik Othman, nr. Aden	100	63	29	9	46	16	32	5
„ El Kubar, S.W. Arabia	74	61	27	10	43	16–14	27	5–6
♀ „ „	86	58	33	9	47	15	25	6–8
„ „ „	77	57	29	9	45	15	28	6–7
Var. *revoili.*								
♂ Rugdeia Sogheira, Adal (type of *L. doriai*) .	85	64	28	10	39	6	25	6
„ Keren, Bogos (type of *L. martensi*) . .	74	55	26	9	32	6	24	5
„ „ „ „ .	70	55	28	10	28	6	24	5–4
„ „ „ „ .	64	55	28	8	31	7	23	6
Hgr. Abu Ushar, Blue Nile	53	58	27	9	35	6	24	6
♀ Joba, Abyssinia . .	74	56	29	10	30	5	23	5
„ Taddeka Mullka, Abyssinia	84	62	32	10	47	7	26	6
„ „ „ .	80	66	31	10	43	6	25	6
„ S. Abyssinia . . .	66	61	30	9	39	6	23	5–6
♂ Somaliland (type), **P.M.**	69	59	28	12	35	7	25	6
♀ „ „ „ .	74	58	30	10	33	7	25	6
„ „ „ „ .	66	60	28	8	40	6	26	6
♂ Berbera, Somaliland .	83	63	29	14	40	7	26	6
„ „ „ .	80	64	25	10	44	10	26	6
♀ „ „ .	96	57	25	12	37	6	24	6–7
„ „ „ .	89	54	26	12	36	7	26	6
„ „ „ .	83	65	30	12	40	6	26	5
„ „ „ .	75	65	29	10	36	6	23	6
♂ Inland of Berbera . .	88	58	26	12	45	10	27	6–5
„ Wagga, nr. Berbera .	80	60	27	9	48	6	24	6

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	1.	2.	3.	4.	5.	6.	7.	8.
♀ Wagga, nr. Berbera .	85	64	32	7	46	7	26	6
,, Brava, Somaliland, **G.M.**	83	70	30	9	35	8	25	6
♂ Mandah, ,, .	88	56	26	11	44	5	24	6–5
♀ ,, ,, .	83	60	29	11	39	5	23	6
♂ Zaila, ,, .	66	60	30	11	47	6	25	6
,, Lugh, ,, .	70	65	26	9	40	7	25	6
Hgr. ,, ,, .	55	61	29	11	41	8	27	6
♂ Shebeli-Juba . . .	77	55	27	10	45	10–9	26	6
♀ Takaungu, Coast of E. Africa	77	60	29	10	37	8–9	25	6–7
♂ Steppes N. of Fuladya, Kenia, E. Africa . .	89	60	27	9	35	9–10	23	6
♀ Mbungi, E. Africa, **N.M.**	73	58	31	11	38	9	25	7–6
,, Dodoma, ,, ,, .	100	65	28	10	45	8	23	5
,, ,, ,, ,, .	88	63	30	11	41	9	25	5
,, ,, ,, . .	84	64	30	10	42	9	25	5
Hgr. Lake Stephanie . .	51	55	27	9	32	9–8	25	5–6

In addition to the above specimens, I have examined the types of *Lacerta longicaudata*, from Tor, Sinaitic Peninsula, preserved in the Senckenberg Museum.

Habitat.—Sinaitic Peninsula, S.W. Arabia, West Coast of the Red Sea, Egyptian Sudan, Abyssinia, Somaliland, Gallaland, East Africa, Senegal, Northern Nigeria, and Lake Chad district.

7. LATASTIA CARINATA.

Lacerta carinata, Peters, Mon. Berl. Ac. 1874, p. 368, pl. —, fig. 1.
Latastia carinata, Bouleng. Cat. Liz. iii, p. 56 (1887), and Ann. Mus. Genova (2) xvii, 1896, p. 17.

Body feebly depressed. Head feebly depressed, $1\frac{2}{3}$ to $1\frac{3}{4}$ times as long as broad, its depth equal to the distance between the anterior corner of the eye and the tympanum, its length $3\frac{1}{5}$ to 4 times in length to vent; snout narrow, pointed, a little longer than postocular part of head, with sharp canthus and nearly vertical, concave loreal region. Pileus $2\frac{3}{4}$ times as long as broad. Neck a little narrower than the head. Hind limb reaching between the collar and the ear-opening; foot $1\frac{1}{4}$ times as long as head; toes slender, feebly compressed. Tail 2 to nearly $2\frac{2}{3}$ times as long as head and body.

Nostril pierced between 4 shields; nasals forming a suture behind the rostral, the suture $\frac{1}{3}$ to $\frac{1}{2}$ the length of the frontonasal, which is

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broader than long and much broader than the internarial space; frontal as long as its distance from the end of the snout, $1\frac{1}{2}$ to 2 times as long as broad, rounded in front, narrow behind, grooved in its anterior two-thirds; parietals $1\frac{1}{2}$ to nearly 2 times as long as broad; interparietal nearly twice as long as broad, twice as long as the occipital, which is a little broader. 4 supraoculars, first and fourth nearly equal in size, if not broken up, the former forming a suture with the frontal, second slightly longer than third; 6 superciliaries, separated from the supraoculars by a complete series of granules. Rostral not entering the nostril; 2 superposed postnasals; anterior loreal not half as long as second; 6 upper labials anterior to the subocular, which is much narrower beneath than above. Lower eyelid opaque, with vertically enlarged scales in the middle. A long and narrow, keeled upper temporal, in contact with the fourth supraocular, followed by two small shields; temporal scales very small, granular; a distinct tympanic shield; three triangular enlarged scales forming a denticulation in front of the ear-opening.

4 pairs of large chin-shields, followed by a small fifth, first three in contact in the middle. 36 gular scales between the symphysis of the chin-shields and the median collar-plate, granular in front, enlarged and imbricate towards the collar; no gular fold. Collar with strongly serrated edge, composed of 14 plates.

Scales granular on the nape, larger and obtusely keeled on the anterior part of the back, gradually enlarged, rhombic, imbricate and strongly and diagonally keeled on the posterior part of the back, gradually merging into the caudal scales; lateral scales smaller, more obtusely keeled; 45 to 52 scales across the middle of the body, 22 or 23 in a transverse series between the hind limbs. Ventral plates overlapping, with the postero-inner angle obliquely truncate, in 6 or 8 longitudinal and 27 transverse series, the plates of the outer series, if present, small; a central group of 10 small plates on the pectoral region. Preanal plate rather small, twice as broad as long, surrounded by numerous smaller, irregular plates.

A series of 7 large transverse plates under the forearm. Scales on upper surface of tibia rhombic, keeled, smaller than largest dorsals. 7 to 11 femoral pores on each side, the series confined to the basal half of the thigh. 24 lamellar scales under the fourth toe.

Caudal scales forming alternately longer and shorter whorls, upper oblique and diagonally and strongly keeled, truncate behind, lower smooth; 30 scales in the fifth whorl.

Greyish yellow sand-colour above, with faint markings in the form of 8 light streaks or series of light spots and a darker lateral band

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from the tympanum to above the thigh, the band with traces of round blue spots; limbs with round light spots. Lower parts white.

A specimen in the Genoa Museum is golden above, with 6 longitudinal series of partly confluent small pale blue spots, and blackish vertical bars between the two outer series of blue spots.

Measurements (in millimetres):

	♂.
From end of snout to vent	95
„ „ „ fore limb	40
Length of head	23
Width of head	14
Depth of head	12
Fore limb	32
Hind limb	55
Foot	29
Tail	195

The type specimen, which I have examined in the Berlin Museum, is from Brava, Somaliland. I have seen a second specimen, also from Brava, preserved in the Genoa Museum. A male specimen obtained at Berbera, Somaliland, by Mr. E. Lort Phillips in 1898, was presented by him to the British Museum.

8. LATASTIA CAPPADOCICA.

Lacerta cappadocica, Werner, Sitzb. Ak. Wien, cxi, 1902, p. 1086, and Zool. Jahrb., Syst. xix, 1903, p. 232, pl. xxiii, figs. 1, 2, and pl. xxiv, figs. 6, 9, 13; Steind. Ann. Hofmus. Wien, xx, 1905, p. 308.

Apathya cappadocica, Méhely, Termész. Kōslōn, Budapest, lxxxv, 1907, p. 26, and Ann. Mus. Hung. vii, 1909, p. 431, pl. xi, figs. 1, 2, 4–7, and pl. xii, figs. 1–7.

Latastia cappadocica, Boulenq. Ann. & Mag. N. H. (7) xx, 1907, p. 45.

Body rather depressed. Head much depressed, flat above, about $1\frac{1}{2}$ times as long as broad, its depth equal to the distance between the centre of the eye and the tympanum, its length $3\frac{3}{4}$ to a little over 4 times in length to vent; snout narrow, obtusely pointed, as long as postocular part of head; cheeks rather swollen in the males. Pileus $2\frac{1}{3}$ to $2\frac{1}{2}$ times as long as broad. Neck as broad as or broader than the head. Hind limb reaching the shoulder or the collar in males,* the axil in females; foot a little longer than the head; toes slender, feebly compressed. Tail twice or a little over twice† as long as head and body, tapering from the base, very slender posteriorly.

* Or to between the collar and the ear, according to Méhely.

† Up to $2\frac{2}{3}$ times, according to Méhely.

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Nostril pierced between 4 to 6 shields; nasals forming a suture behind the rostral, the suture $\frac{1}{5}$ to $\frac{1}{3}$ the length of the frontonasal, which is broader than long*; prefrontals forming a median suture; frontal shorter than its distance from the end of the snout, $1\frac{1}{4}$ to $1\frac{1}{2}$ times as long as broad, rounded in front, much narrower behind; parietals $1\frac{3}{4}$ to 2 times as long as broad; interparietal $1\frac{1}{3}$ to $2\frac{1}{3}$ times as long as broad; occipital shorter and usually much broader than the interparietal.† 4 supraoculars, first small and in contact with the frontal,‡ sometimes broken up into 2 or 3 granules, second and third equal, fourth small but larger than first, and sometimes also broken up; 6, rarely 7, superciliaries, second usually longest, separated from the supraoculars by a complete series of granules. Lower eyelid with a transparent disc formed of 6 to 8 large scales. Rostral not entering the nostril, often separated from it by a small shield; 2 or 3 postnasals; 3 loreals, first small and often forming a triangle with the two postnasals, sometimes fused with the upper postnasal, second as long as or shorter than third; 5 upper labials§ anterior to the suboocular, which is narrower beneath than above. Two or three narrow upper temporals, first long and in contact with the fourth supraocular; temporal scales granular, not larger than dorsals; a distinct tympanic shield.

5 pairs of chin-shields,‖ first three in contact in the middle; 27 to 30 gular scales¶ between the symphysis of the chin-shields and the median collar-plate; gular fold absent or very indistinct. Collar with entire edge, composed of 8 to 12 plates.

Dorsal scales granular, round or oval, smooth, rather larger and flatter towards the ventrals, 67 to 71** across the middle of the body. Ventral plates scarcely overlapping, with straight posterior border, broader than long, in 6 longitudinal and 28 or 29 transverse series††; sometimes with enlarged lateral scales forming an incomplete additional series on each side. Preanal plate small, broader than long, bordered by 3 or 4 series of scales, or broken up into several scales.

A short series of 4 or 5 feebly enlarged transverse plates under the forearm. Upper surface of limbs covered with granular scales. 20

* Longitudinally divided into two in a female from Hassan Gassi.

† Separated from it by a small shield in the same female from Hassan Gassi.

‡ With rare exceptions, according to Méhely.

§ Very rarely 6, according to Méhely.

‖ Or 6, according to Steindachner.

¶ 24 to 33, usually 27 to 31, according to Méhely.

** Up to 74, according to Méhely.

†† 27 to 29 in males, 29 or 30 in females, according to Méhely.

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to 24* femoral pores on each side. Subdigital lamellæ unicarinate, 24 to 26 under the fourth toe.

Caudal scales truncate, upper oblique, obtusely keeled, the median pair, both above and beneath, sometimes a little broader than the others; 22 to 26 scales in the fourth or fifth whorl behind the postanal granules.

Young greyish white, largely reticulated with black, and with a black lateral band, the ground-colour appearing as round spots. Adult grey or greyish brown, with the dorsal reticulation fading away or replaced by two series of irregular spots along the back, or by black cross-bars on the posterior part of the body; the black lateral band with small white spots on the neck and small white and large round blue spots on the body; a more or less distinct white streak from behind the eye to the shoulder, passing through the tympanum, sometimes continued on the side of the body; head with black spots; limbs with round white spots; tail uniform, except at the base; lower parts white. Tail blue in the young.

Measurements (in millimetres):

	1.	2.	3.
From end of snout to vent	76	63	66
,, ,, ,, fore limb	31	26	23
Length of head	20	17	16
Width of head	13	11	10
Depth of head	9	8	7
Fore limb	28	23	23
Hind limb	45	38	37
Foot	23	20	19
Tail	150	135	—

1. ♂, Adana. 2. ♂, Hassan Gassi. 3. ♀, Hassan Gassi.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.
♂ Adana	76	69	29	12	28	22–23	24
,, Hassan Gassi	63	68	29	9	29	24–22	26
♀ ,, ,,	66	71	28	9	30	19–20	24
Yg. Kaisarieh	44	68	29	12	27	22	26
,, Dumbalagh Dagh	38	67	29	8	30	22–21	24

Table as in the preceding, minus column 8.

Habitat.—The Karaman Province of Asia Minor up to 2000 m. altitude. The types described by Werner are from the Erdshias Mountains in Cappadocia.

* 19 to 25, according to Méhely. The male from Adana has an additional series of minute pores.

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A specimen labelled as from Mesopotamia is preserved in the Basle Museum.

L. cappadocica has much in common with *Lacerta danfordii*, as recognized by Werner and by Méhely. It is probably derived from the *Podarcis* group of the genus *Lacerta*, whilst the other species of *Latastia* appear to show greater affinity with *Lacerta* s. str. However, the black barring on the back and the large blue spots on the sides are features also frequent in *Latastia longicaudata*, and might be used as an argument against the suggested diphyletic origin of the genus as here understood.

6. ACANTHODACTYLUS.

Acanthodactylus, Wiegm. Herp. Mex. p. 10 (1834); Dum. & Bibr. Erp. Gén. v, p. 265 (1839); Gray, Cat. Liz. p. 36 (1845); Schreib. Herp. Eur. p. 383 (1875); Bouleng. Bull. Soc. Zool. France, 1878, p. 181; Lataste, Ann. Mus. Genova (2) ii, 1885, pp. 125, 477; Bouleng. Cat. Liz. iii, p. 58 (1887); Anders. Zool. Egypt, Rept. p. 147 (1898); Bouleng. Bull. Soc. Zool. France, 1918, p. 143.

Scapteira, part., Gray, Ann. N. H. i, 1838, p. 280.

Ida, part., Gray, t.c. p. 281.

Meroles, part., Gray, t.c. p. 282.

Head-shields normal, but occipital rudimentary or absent. Nostril pierced between two nasals and the first upper labial. Collar distinct. Dorsal scales small and juxtaposed or large and imbricate; ventral plates feebly imbricate, with truncate posterior border, smooth. Digits cylindrical or feebly compressed, with keeled lamellar scales inferiorly and serrated or pectinate laterally. Femoral pores. Tail long, cylindrical.

Spain and Portugal, Africa north of the Equator, Southern Asia eastward to North-western India.

The parietal foramen is constantly present and teeth are absent on the palate.

Although, from a morphological standpoint, *Acanthodactylus* is connected with *Lacerta* through *Latastia*, it appears quite certain to me that none of the species grouped under the latter genus can be regarded as leading to it. The striation characteristic of most of the *Acanthodactylus* in their juvenile livery is of a kind that points to descent from a more primitive type, perhaps related to the genus

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Nucras. As *Lacerta* is probably derived from *Nucras*, we may imagine some primitive form, no longer in existence, but possessing the generic characters of the former, to have given rise to this genus, characterized by the lateral denticulation of the digits, as an adaptation to life on a sandy soil.

In the less specialized forms, constituting the first group of the following classification, there are three series of scales round the digits, as in some specimens of *Lacerta* (*L. agilis*, for instance) in which the subdigital lamellæ are divided into two; the serration of the inner side of the digit, if present, is produced by the antero-outer angle of the dorsal scale, whilst the outer denticulation or fringe, sometimes very strongly developed, is formed by a distinct series of scales, much narrower than the upper and lower. In the species of the second group the serration on the inner side of the fingers is produced by a series of scales similar to that of the outer side, there being four series round the digit. This character was first pointed out by Lataste, and Anderson has further dwelt on its importance for the definition of species.

The group with three series of scales round the fingers is undoubtedly the more primitive, the nearer to *Lacerta*. But among its constituents there is not one that can be regarded as the most generalized in all respects, as the survivor of the species from which the others were derived. Looking upon the feeble denticulation of the toes combined with the large size and small number of ventral plates as primitive, we find *A. vulgaris* and *A. tristrami* to realize the original condition, whilst on the other hand, the disintegration, in these two species, of the first and fourth supraocular shields points to a derivation from a form like *A. schreiberi*. A combination of the characters of *A. tristrami* and *A. schreiberi* would produce the ideal prototype of *Acanthodactylus*; and it is interesting to find, in connexion with the question of the original home of the genus, that both these species are Syrian. It is remarkable that the habitat of the nearest ally of *A. tristrami*, *A. vulgaris*, should be so remote, at the westernmost extremity of the range of the genus. I have no better explanation to offer for the fact than extinction of the original forms in the intervening area, but it is not without parallel in the distribution of animals and plants*; other instances are well known to all herpetologists.†

* For a list of plants, *cf.* Engler, Versuch einer Entwickelungsgeschichte der Pflanzenwelt, i, p. 53 (1879).

† The genera *Clemmys*, *Blanus*, *Pelodytes*, *Molge derjugini* and *M. aspera*, *Pelobates syriacus* and *P. cultripes*; above all the discontinuous range of *Testudo ibera* and *Vipera lebetina* are striking examples.

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The probable derivation of *A. boueti*, the southernmost African species, from the northern *A. vulgaris* is entirely in accordance with the views I have expressed on the dispersal of the Lacertidæ.

I have stated above that the striation of the young of some of the lizards of this genus is more primitive than that of any of the *Lacerta*. This view is based on the number of white streaks on the neck, which may be as high as ten in some *A. vulgaris* and *A. pardalis* (6 dorsal and a pair of lateral on each side), and it is a suggestive fact, in this connexion, that, on morphological grounds, *A. vulgaris* is considered as, on the whole, the most generalized species of the genus (the young of *A. tristrami* is still unknown), whilst in the most extreme species at the other end of the series, *A. scutellatus*, the light streaks, if present, are not more than 6 in number (4 dorsal and 2 lateral).

The distinction of species in this genus is a matter of considerable difficulty, owing to the great variability in nearly all the characters which have hitherto been used for the purpose, and the solution of the problem must for the present rest on the taste and judgment of the systematist. In the following revision I have utilized a very large material (over 700 specimens), and the results of long study, at intervals, for 40 years. If I have erred in uniting too many forms under one species, I cannot incur the reproach of increasing the confusion by doing so, as subordinate categories have been freely recognized under the term "variety."

In making use of the following synopsis for the identification of specimens, difficulty may arise as to the exact number of longitudinal series of ventral plates. It is often perplexing to count these series, owing to a gradual passage, on the sides of the body, of the plates into the enlarged scales; for this reason the numbers given by me are not always in accordance with those of other authors. According to the system followed throughout in this family, I reckon as ventral plates such of the outer series, whatever their width, as are as long as those of the other longitudinal series. It sometimes happens, however, that in one or two transverse series there is one plate more on one side of the body than on the other; in such cases I have not reckoned the extra plate.

Synopsis of the Species.

I. Three series of scales round the fingers and toes.

A. Only one or two large supraoculars, the (primarily) first and fourth, or first, second and fourth, usually broken up into numerous small plates or granules (the first rarely into 2 or 3 plates only); subocular often bordering the mouth; dorsal scales small; ventral

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plates in 8 or 10 (rarely 12) longitudinal series; hind limb not reaching the ear.

1. Toes very feebly pectinate on both sides.

Two large supraoculars; dorsal scales smooth or keeled, upper caudals strongly keeled; 18 to 30 femoral pores on each side. *A. vulgaris*, D. & B., p. 41.

Two large supraoculars; dorsal and basal caudal scales perfectly smooth; 18 to 24 femoral pores on each side. *A. tristrami*, Gthr., p. 53.

A single large supraocular; dorsal and upper caudal scales strongly keeled; 14 to 18 femoral pores on each side. *A. boueti*, Chaban., p. 55.

2. Outer edge of fourth toe strongly pectinate; two large supraoculars; dorsal and upper caudal scales strongly keeled; 19 to 28 femoral pores on each side . . . . . *A. savigny*, Aud., p. 57.

B. Three (rarely two) large supraoculars, the first frequently divided into two or three, or separated from the second by a series of granules; dorsal scales small; toes usually feebly pectinate on both sides, or a little more strongly on the outer side of the fourth toe.

Ventral plates in 12 or 14 (rarely 16) longitudinal series; subocular very rarely bordering the mouth; hind limb rarely reaching the ear (males); foot 1 to $1\frac{1}{3}$ times length of head. *A. pardalis*, Licht., p. 62.

Ventral plates in 10 longitudinal series; subocular usually bordering the mouth; hind limb reaching the ear or the eye; foot $1\frac{1}{3}$ to $1\frac{1}{2}$ times length of head . *A. micropholis*, Blanf., p. 76.

C. Usually four large supraoculars, but first or fourth sometimes broken up; posterior dorsal scales imbricate; ventral plates in 10 (rarely 8 or 12) longitudinal series; fourth toe more or less strongly pectinate on outer side.

Dorsal scales small, obtusely or more or less strongly keeled, 18 to 26 in a transverse series between the hind limbs; first supraocular always entire . . . . . *A. schreiberi*, Blgr., p. 78.

Posterior dorsal scales large and strongly keeled, 8 to 16 in a transverse series between the hind limbs . *A. boskianus*, Daud., p. 83.

II. Four series of scales round the fingers, three round the toes; three or four large supraoculars, the first rarely broken up.

A. Ventral plates in 12 to 16 straight longitudinal series; posterior dorsal scales very large, imbricate, and strongly keeled, 10 to 16 in a transverse series between the hind limbs; outer edge of fourth toe strongly pectinate . . . . . *A. cantoris*, Gthr., p. 91.

B. Ventral plates not forming straight longitudinal series; dorsal scales small, 18 or more in a transverse series between the hind limbs.

Scales more or less distinctly keeled; ventral plates in 12 to 16 longitudinal series; snout acutely pointed; foot longer than head; outer edge of fourth toe strongly pectinate *A. scutellatus*, Aud., p. 97.

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Scales strongly keeled on the posterior part of the body; ventral plates in 16 longitudinal series; snout obtusely pointed; foot longer than head; outer edge of fourth toe strongly pectinate. *A. fraseri*, Blgr., p. 111.

Scales smooth; ventral plates in 14 to 18 longitudinal series; foot not or but slightly longer than head; toes feebly pectinate . . . . . *A. grandis*, Blgr., p. 113.

1. ACANTHODACTYLUS VULGARIS.

Lacerta velox (non Pall.), M.-Edw. Ann. Sc. Nat. xvi, 1829, pp. 78, 85, pl. vi, fig. 7, and pl. vii, fig. 4; Dugès, t.c. p. 383, pl. xv, fig. 6.

Lacerta erythrura, Schinz, Naturg. Rept. p. 102, pl. xxxviii (1833).

Acanthodactylus vulgaris, Dum. & Bibr. Erp. Gén. v, p. 268 (1839); Guichen. Explor. Sc. Alg., Rept. p. 13 (1850); Strauch, Erp. Alg. p. 35 (1862); Schreib. Herp. Eur. p. 390 (1875); Bouleng. Bull. Soc. Zool. France, 1878, p. 195; Bedriaga, Arch. f. Nat. 1879, p. 335; Bouleng. Proc. Zool. Soc. 1881, p. 747, pl. lxiv, fig. 4; Lataste, Ann. Mus. Genova (2) ii, 1885, p. 477; Bouleng. Cat. Liz. iii, p. 67 (1887); Bedriaga, Amph. Rept. Portug. p. 60 (1889); Bouleng. Tr. Zool. Soc. xiii, 1891, p. 131; Anders. Proc. Zool. Soc. 1892, p. 15; Koenig, Sitzb. Niederrhein. Ges. Bonn, 1892, p. 20; Ferreira, Jorn. Sc. Lisb. (2) ii, 1892, p. 188; Doumergue, Erp. Oran. p. 186 (1901); Schreib. Herp. Eur., Ed. 2, p. 353 (1912); Chabanaud, Bull. Mus. Paris, 1916, p. 232; Bouleng. Bull. Soc. Zool. France, 1918, p. 146.

Acanthodactylus lineomaculatus, Dum. & Bibr. t.c. p. 276; Gray, Cat. Liz. p. 37 (1845); Strauch, op. cit. p. 37; Boettg. Abh. Senck. Ges. ix, 1873, p. 129; Schreib. op. cit. p. 385; Bouleng. Bull. Soc. Zool. France, 1878, p. 191, and Proc. Zool. Soc. 1881, p. 747; Boettg. Abh. Senck. Ges. xiii, 1883, p. 114.

Lacerta pardalis (non Licht.), Schleg. in Wagn. Reise Alg. iii, p. 115 (1841).

Acanthodactylus boschianus, Bonap. Icon. Faun. Ital., Amf. (1841).

Acanthodactylus velox, Gray, Cat. Liz. p. 36 (1845); Boscá, Bull. Soc. Zool. France, 1880, p. 272.

Acanthodactylus bellii, Gray, l.c.

Acanthodactylus vulgaris, var. *lineomaculatus*, Lataste, l.c.; Doumergue, op. cit. p. 187, pl. iv, figs. 1–7; Bouleng. Bull. Soc. Zool. France, 1918, p. 149.

Acanthodactylus vulgaris, var. *bocagii*, Ferreira, t.c. p. 194.

Acanthodactylus savignyi, var., Doumergue, op. cit. p. 183.

Acanthodactylus blanci, Doumergue, op. cit. p. 184, pl. xiii, figs. 1–5.

Acanthodactylus vulgaris, vars. *tingitanus*, *mauretanicus*, *ksourensis*, Doumergue, op. cit. p. 187.

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Acanthodactylus vulgaris, vars. *belli, atlantica, mauritanica, blanci*, Bouleng. Bull. Soc. Zool. France, 1918, p. 149.

In the broad sense, *A. vulgaris* embraces all the individuals combining the following characters: Small dorsal scales, ventral plates much broader than long and in 8 or 10 longitudinal series, strongly keeled upper caudal scales, feebly denticulated digits, and the first and fourth supraoculars more or less broken up into small shields and granules.* Like all Acanthodactyls with an extensive range, it varies considerably, and may be divided into several rather ill-defined geographical forms. In order to avoid confusion, the following description is drawn up exclusively from Spanish and Portugese specimens, which represent the typical *A. vulgaris* of Duméril and Bibron. The distinctive features of the varieties, together with the numerical variation shown by the material at my disposal, will be dealt with afterwards.

Habit rather robust, body moderately elongate, decidedly depressed.† Head $1\frac{1}{3}$ to $1\frac{1}{2}$ times as long as broad, its length $3\frac{3}{4}$ to 4 times in length to vent in males, 4 to $4\frac{1}{2}$ times in females, its depth equal to the distance between the anterior corner or the centre of the eye and tympanum; a lanceolate concavity from the frontonasal to the middle of the frontal; snout obtusely pointed, as long as the postocular part of the head, with rather sharp canthus and feebly concave loreal region; nasals feebly swollen. Pileus twice as long as broad. Neck as broad as the head. The hind limb reaches the shoulder or the ear, usually between these two points, in males, the axil or between the shoulder and the ear in females; foot $1\frac{1}{5}$ to $1\frac{2}{5}$ times as long as the head; fourth toe, from the base of the fifth, as long as the head, or a little longer (up to $1\frac{1}{3}$ times), or a trifle shorter. Tail $1\frac{3}{5}$ to 2 times as long as head and body.

Upper head-shields convex, sometimes rugose in the adult. Suture between the nasals $\frac{1}{3}$ to $\frac{1}{2}$ the length of the frontonasal, which is broader than long, and a little broader than the internarial space; prefrontals longer than broad and forming a median suture‡; frontal

* Scales across middle of body 50 to 72; transverse series of ventral plates 28 to 33; gular scales 21 to 32; femoral pores 18 to 30; lamellæ under fourth toe 18 to 25.

† Bedriaga (1889) says "tronc . . . arrondi ou légèrement déprimé." In specimens preserved in spirit the depth of the body is usually $1\frac{1}{2}$ to $1\frac{2}{3}$ times in the width, and in life, according to the same authority (1879), these lizards "platten sich, sobald der geringste [Sonnen] Strahl in ihren Käfig fällt, ganz ab."

‡ A small azygos prefrontal in a male from Ciudad Real and in a young from Tabernas de Valldigna.

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as long as its distance from the end of the snout, 2 to $2\frac{1}{3}$ times as long as broad, rounded or truncate in front, narrow behind; parietals as long as broad or broader than long, outer border straight or concave. Two large supraoculars (the second and third of typical Lacertids) preceded and followed by small shields and granules (the first supraocular often represented by 2 or 3 narrow shields), and bordered on the outer side by a single series of granules, rarely by two incomplete series; the anterior supraocular as long as or a little longer than its distance from the second loreal; 6 or 7, rarely 8, superciliaries, first longest.* Anterior loreal as long as or shorter than the second; 4 upper labials, rarely 5 to 7,† anterior to the centre of the eye; subocular sharply keeled below the eye, narrowly bordering the mouth or wedged in between the fourth and fifth, or rarely fifth and sixth upper labials.‡ One or two large upper temporals§; temporal scales granular, convex or very obtusely keeled, upper minute, lower much larger; a very small tympanic shield sometimes present; auricular denticulation absent or very slightly indicated.

Usually 5 pairs of chin-shields,‖ the three first in contact in the middle, 25 to 33 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate, juxtaposed in front, gradually enlarged and imbricate towards the collar; gular fold absent or merely indicated. Collar free, curved or angular, composed of 9 to 12 plates.

Scales granular and smooth on the nape, roundish-subrhomboidal and smooth or feebly keeled on the back, a little smaller on the upper part of the sides, largest towards the ventrals, often subimbricate and distinctly or even strongly keeled towards the tail; 58 to 68 scales across the middle of the body. Ventral plates in regular longitudinal and transverse series, all except the outermost much broader than long, the largest fully twice as broad as long, in 10, rarely 8, longitudinal and 28 to 33 transverse series. 2 to 5 enlarged preanal plates in a median series, the last always much broader than long. 21 to 28 femoral pores on each side, the two series meeting in the middle.

* In contact with the prefrontal in a male from Ciudad Real.

† 7 in the specimen from Abrantes.—The French specimen figured by Milne-Edwards is represented as having 5.

‡ It is usually stated that the subocular borders the mouth in this species, and this is true as concerns the type specimens, but it is so in only 20 out of the 44 cases examined by me.

§ Separated from the parietals by granules in a male from Valencia.

‖ 6 on one side in a male from Valencia, and in two young from Tabernas de Valldigna; 7 pairs, the 4 anterior in contact in the middle, in the specimen from Abrantes.

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Digits with 3 series of scales, very feebly denticulate on each side; 20 to 25 uni-, bi-, or tricarinate lamellæ under the fourth toe.

Upper caudal scales very oblique, strongly and diagonally keeled, those at the base broader than long, lower smooth in the basal part of the tail; 22 to 32 scales in the fourth or fifth whorl.

The young are elegantly striated with black and yellowish white. 5 white dorsal streaks, the outer proceeding from the superciliary edge, and extending along the basal third of the tail, the median, which is sometimes bifurcate just before reaching the occiput, ending between the hind limbs, the pair next to it uniting into a single streak on the base of the tail; 2 white streaks on each side, the upper from behind the eye to the base of the thigh, bordering the tympanum above and interrupted behind the collar-fold, reappearing on the base of the tail, the lower from below the tympanum to the base of the arm and along the side of the belly; series of round yellowish-white spots sometimes present along the black interspaces. Head pale greyish-brown above, with black spots and a continuation of the outer dorsal black band on to the supraoculars; two black bands on the temple; upper lip with black spots. Upper surface of limbs black, with large round yellowish-white spots. Tail and lower surface of thighs bright red.* Throat and belly white. In exceptional cases the white vertebral streak splits up into two, and there are then 10 light streaks, 3 dorsals and 2 laterals on each side; in others, the white vertebral streak persists on the nape but is absent on the body, the median pair uniting on the base of the tail. The number of light streaks on the body may therefore be 10, 9 or 8.

Traces of the light streaks may persist in the adult, sometimes pale grey, finely edged with darker, or become transformed into chains of round whitish dark-edged spots; large irregular black spots, or black bands with round white spots, may occupy the spaces between the light streaks, or the markings may almost entirely disappear, the upper parts being grey, greyish-brown, or copper-colour. The red colour sometimes persists, faded to pink or pinkish, on the lower surface of the tail.

Measurements (in millimetres):

	1.	2.
From end of snout to vent . .	72	74
,, ,, ,, fore limb . .	27	26
Length of head	17	17
Width of head	12	12

* The tail of the young *A. vulgaris* has been compared by Bedriaga to the antenna of a boiled lobster.

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	1.	2.
Depth of head	10	9
Fore limb	27	26
Hind limb	46	42
Foot	22	20
Tail	133	120

1. ♂, Ciudad Real. 2. ♀, Valencia.

Habitat.—Sandy and rocky arid tracts in Spain (Provinces Leon, Old Castille, New Castille, Valencia, Murcia, Andalusia) and Portugal (Estremadura, Algarve). The occurrence of this lizard in the South of France is doubtful. A few specimens are stated to have been found in the departments Hérault and Gard in the first half of the last century, but the lizard has not been rediscovered since, any more than in the neighbouring part of Italy, notwithstanding Bonaparte's statement.*

Var. BELLI, Gray (vars. *vulgaris*, *ksourensis*, Doum.).

The form generally distributed in North Algeria agrees in all essential characters with the typical form, except that the subocular appears to border the mouth constantly, and to a greater extent. The scales on the back are likewise juxtaposed and convex and may be either nearly smooth or rather strongly keeled, with every gradation between the two extremes.

Suture between the nasals very short,† rarely more that $\frac{1}{3}$ the length of the frontonasal, which is very rarely divided into two‡; an azygos prefrontal very rarely present§; disintegration of the first supraocular sometimes restricted to a division into two shields, or one shield and one granule‖; the distance between the second loreal and the anterior large supraocular often much less and never more than the length of the latter; subocular entering the labial border between the fourth and fifth upper labials; tympanic shield nearly always present and sometimes rather large. Tail $1\frac{1}{3}$ to $1\frac{2}{3}$ times as long as head and body.

58 to 70 scales across the middle of the body. 20 to 30 femoral pores on each side. 18 to 23 lamellæ under the fourth toe.

* "Habitat in Hispania, in Gallia meridionali et finitima Italia maritima." Bonaparte, Amph. Eur. p. 38 (1840).

† Rostral forming a narrow suture with the frontonasal in one of the types of *A. belli*.

‡ In a young from Algiers.

§ In a female from Algiers.

‖ As in a male from Sersou.

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The types of this variety are young from Algiers which do not differ in their livery from the typical form. The yellow vertebral streak may be restricted to the nape or extend to the lumbar region, bifurcating on the nape. Adult often grey or greyish-brown above, sometimes coppery brown, with a series of square or transverse black spots on each side of the back, a dorsolateral and a lateral series of round white spots, and between the two latter a series of large blue, black-edged ocelli, which may extend along the side of the tail*; others are handsomely marked with more or less perfect remains of the light streaks of the young, separated by series of large black spots, except on the vertebral region, which is unspotted; others again are almost uniform or with mere traces of the dark and light markings.

Measurements (in millimetres):

	1.	2.
From end of snout to vent . .	68	71
„ „ „ fore limb . .	25	24
Length of head	17	17
Width of head	12	12
Depth of head	10	10
Fore limb	24	24
Hind limb	40	38
Foot	22	21
Tail	110	100

1. ♂, Rorfa des Beni Salam. 2. ♀, Bordj-bou-Arrerij.

Habitat.—Coast and Plateaux of Algeria.—Pellegrin, Bull. Mus. Paris, 1909, p. 413, has recorded *A. vulgaris* from Sokoto, Northern Nigeria (Mission Tilho-Gaillard); the young specimen, which I have examined in the Paris Museum, belongs to the var. *belli*.

Var. ATLANTICUS, Boulenger.

I have seen three specimens only, females, from the Atlas of Morocco. They agree with the preceding variety, except that the lower part of the subocular, instead of bordering the mouth, is severed as a small shield intercalated between the fourth and fifth upper labials.

Suture between the internasals ¼ the length of the frontonasal, which, in one of the specimens, is longitudinally divided into two. The scales on the body are convex, juxtaposed and feebly keeled, except towards the base of the tail, and there are 52 to 63 across the

* A thing never observed in any of the *Lacerta*, in which lateral blue ocelli are frequently present, in the same position on the body.

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middle of the body. 22 to 24 femoral pores on each side. 21 or 22 lamellæ under the fourth toe.

Reddish brown above with two grey lines along the back and two white streaks, which may be edged with dark grey or break up into spots, on each side; a median grey line on the nape in one of the specimens; small black spots may be present between the light longitudinal streaks; limbs with round, white, dark-edged spots.

Measurements (in millimetres):

From end of snout to vent	74
,, ,, ,, fore limb	26
Length of head	17
Width of head	11
Depth of head	9
Fore limb	24
Hind limb	39
Foot	22
Tail	127

Two specimens were obtained by Mr. Riggenbach in the Tamaruth Valley (altitude about 1500 m.); a third, labelled Atlas of Morocco, was presented to the British Museum by Mr. E. G. B. Meade Waldo.

Var. MAURITANICUS, Doumergue.

Distinguished from the var. *belli* by the dorsal scales, which are flat, rhombic, subimbricate, and strongly keeled from the nape or between the shoulders to the base of the tail, the keels sharply defined, exactly as in the var. *lineomaculatus*, from which it differs in the subocular bordering the mouth, between the fourth and fifth upper labials.*

Suture between the nasals $\frac{1}{4}$ to $\frac{1}{3}$ the length of the frontonasal†; the distance between the second loreal and the anterior supraocular sometimes longer than the latter, rarely a little shorter; often two series of granules between the supraoculars and the superciliaries, of which there are 5 or 6, rarely 7; tympanic shield constantly present. Tail $1\frac{1}{3}$ to $1\frac{2}{3}$ times as long as head and body.

53 to 65 scales across the body. 22 to 26 femoral pores. 20 to 23 lamellæ under the fourth toe.

Coloration as in var. *belli*, but adult often with black spots on the vertebral area. Doumergue mentions a series of yellow spots on the sides and a yellow streak just above the ventral region. Tail often pink, bright vermilion in females during the breeding season.

* Doumergue, who has examined many specimens, has met with but a single exception.

† Which is longitudinally divided into two in one specimen only (S. Cruz).

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Measurements (in millimetres):

	1.	2.
From end of snout to vent . . .	72	77
„ „ „ fore limb . .	29	30
Length of head	18	18
Width of head	13	13
Depth of head	10	11
Fore limb	26	25
Hind limb	45	39
Foot	21	19
Tail	115	—

1. ♂, Guelt-es-Stal. 2. ♀, Daya.

Habitat.—Oran and neighbouring parts of the Province; also near Nemours and on the Plateaux.—The specimens from Telouet, Morocco, mentioned by Chabanaud, probably belong to this variety.

Var. BLANCI, Doumergue.

Agrees with the vars. *mauritanicus* and *lineomaculatus* in the shape and strong carination of the scales on the body.

Suture between the internasals $\frac{1}{6}$ to $\frac{1}{3}$ the length of the fronto-nasal, which is sometimes longitudinally divided into two*; sometimes an azygos shield incompletely separating the prefrontals†; distance between the second loreal and the anterior supraocular exceeding the length of the latter in the adult; usually a single series of granules between the supraoculars and the superciliaries,‡ of which there are 6 or 7; subocular not reaching the oral margin,§ wedged in between the fourth and fifth upper labials. Tail $1\frac{1}{2}$ to a little over 2 times length of head and body.

54 to 68 scales across the middle of the body. 18 to 25 femoral pores. 19 to 23 lamellæ under the fourth toe.

Young blackish above, with 4 yellow streaks along the back and two on each side, with a yellow vertebral streak confined to the nape; series of round yellow spots along the dark bands; head variegated with black and yellow; tail bluish beneath at the base, decidedly blue at the end. Adult grey or somewhat rufous, with the markings of the young much effaced; a lateral series of yellow spots or ocelli. A large male in the Paris Museum has four chains of white, black-edged ocelli along the back.

* In two specimens.
† In five specimens.
‡ In two specimens there are two.
§ Except in one male from Cape Bon.

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Measurements (in millimetres):

	♂.	♂.	♀.	♀.
From end of snout to vent . .	90	61	94	80
„ „ „ fore limb .	31	28	32	28
Length of head	21	18	22	18
Width of head	15	13	16	13
Depth of head	13	11	13	11
Fore limb	32	27	30	27
Hind limb	57	44	54	43
Foot	28	23	27	21
Tail	165	127	155	115

The largest *Acanthodactylus* after *A. grandis*.

Habitat.—Littoral near Tunis.

Var. LINEOMACULATUS, D. & B.

Head often a little more elongate than in the preceding forms, $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as broad; foot usually a little longer, up to $1\frac{2}{3}$ times the length of the head. Tail $1\frac{1}{2}$ to 2 times as long as head and body. Suture between the nasals $\frac{1}{6}$ to $\frac{1}{3}$, rarely $\frac{1}{2}$, the length of the fronto-nasal, which may be nearly as long as broad and is often divided into two by a longitudinal cleft*; very frequently one or two azygos shields between the prefrontals†; parietals sometimes a little longer than broad; anterior supraocular sometimes a little shorter than its distance from the posterior loreal; often 2 or 3 series of granules between the supraoculars and the superciliaries, which are 5 or 6 in number; subocular very rarely reaching the oral border,‡ wedged in between the fourth and fifth or fifth and sixth upper labials; temporal scales often distinctly keeled; 4 or 5 scales often form a feeble but very distinct denticulation in front of the tympanum. Gular fold sometimes very distinct.§ Dorsal scales rhombic, flat and subimbricate, with strong and sharply defined keels, from the nape or from between the shoulders, often passing gradually into the caudals; sometimes a band of enlarged scales on each side of the posterior part of the back, proceeding from the basal caudals.

* In 8 out of the 26 specimens before me; in 67 p. c. of the specimens from Casablanca described by Boettger.

† One in 13 specimens, two in 4; one in 27 p. c. and two in 59 p. c. of Boettger's Casablanca specimens.

‡ Only once, and on one side only, in the specimens before me. In my description of 38 specimens from Tangier, in 1878, I stated this condition to be exceptional.

§ Especially in one specimen from Mogador.

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50 to 72 scales across the middle of the body. 20 to 27 * femoral pores on each side. 20 to 23 lamellæ under the fourth toe.

Young with 9 yellow longitudinal streaks separated by black interspaces, which may bear series of round yellow spots; the yellow vertebral streak sometimes bifurcating in the young; limbs with large round yellow spots. These markings sometimes persist in the adult, but the light dorsal streaks, five in number, often become greyish, bearing a series of round whitish or yellowish spots, and the interspaces between them assume a greyish-brown or golden or reddish colour bearing large black spots; the area between the outer dorsal and the upper lateral light streaks often with a series of white or blue, black-edged ocellar spots. Tail red in the young, which colour sometimes persists on the lower surface in the adult.

Measurements (in millimetres):

	♂.	♀.
From end of snout to vent	70	59
„ „ „ fore limb	26	22
Length of head	17	14
Width of head	11	9
Depth of head	9	8
Fore limb	23	21
Hind limb	40	36
Foot	22	20
Tail	130	103

Habitat.—Morocco, from Tangier to Agadir, and Plateau of Morocco.

This variety constitutes a link between *A. vulgaris* and *A. savigny i*.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
Forma typica:									
♂ Spain (type), **P.M.**	70	68	10	31	10	31	25	23	4
♀ „ „ „	59	64	10	31	10	31	27–26	25	4
♂ Valencia	72	63	10	28	11	30	26–27	24	4
„ „	70	60	10	30	11	29	26–25	24	4
♀ „	74	66	10	29	11	30	23–24	21	4
„ „	62	61	10	30	11	31	24–23	23	4
„ „	56	58	10	32	12	31	25–23	21	5–4
„ „	55	59	10	31	10	29	23–25	25	4
„ „	52	60	10	29	11	30	22–26	20	4
Yg. „	41	65	10	31	10	32	21–22	20	4
„ „	37	64	10	30	10	32	27–28	23	4
„ „	37	66	8	29	11	32	27–28	25	4–5
♂ Dehesa de Albufera, Valencia	75	60	8	29	9	30	26–28	25	4

* 18 to 29 according to Boettger.

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	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Tabernas de Valldigna . .	66	60	10	29	10	31	24–26	23	4
Yg. „ . .	40	61	10	33	10	30	26–27	23	4
„ „ . .	39	64	10	31	12	28	24–25	22	4
„ „ . .	37	65	10	29	11	29	27–26	24	4
♂ Ciudad Real	72	66	10	31	9	33	26–27	23	4
„ Don Benito, Badajos . .	69	63	10	32	9	25	26–25	21	4
Yg. Abrantes, Portugal . . .	44	68	10	31	10	29	24–25	21	7–6
Var. *belli.*									
♂ Sebdou, Prov. Oran . . .	66	62	10	28	11	26	26–27	20	4
„ Sersou Plateau	75	66	10	31	13	29	30–28	21	4
„ „	67	58	10	30	11	28	25–24	20	4
♀ Wed Sedeur (between Laghouat and Djelfa)	72	59	10	31	9	29	20–21	20	4
„ Algiers	70	60	10	31	10	25	21–20	19	4
Yg. „	41	69	10	31	9	25	24–26	23	4
„ „	34	65	10	28	10	25	23–22	20	4
„ „ (type of *A. belli*) . .	34	70	10	29	10	24	22	19	4
„ „ „ . .	33	64	10	29	10	24	22–20	19	4
♀ Maffray, near Bona . . .	75	64	10	30	12	23	25–24	19	4
„ „ „ . . .	74	62	10	30	10	24	21–22	23	4
„ „ „ . . .	70	65	10	29	11	21	26–25	20	4
„ „ „ . . .	59	61	10	29	11	23	23	19	4
♂ Setif, Prov. Constantine . .	53	60	10	30	9	23	22–23	21	4
♀ Bordj-bou-Arrerij, Prov. Constantine	71	68	10	33	10	25	21	19	4
♂ Rorfa des Beni Salam, nr. Aumale	68	65	10	29	10	22	22–21	20	4
Hgr. Wed Okris, nr. Aumale . .	44	67	10	30	9	25	22	18	4
Var. *atlanticus.*									
♀ Tamaruth Valley, Atlas of Morocco	74	52	10	32	10	26	24	22	5
„ „ „	69	59	10	31	11	24	22	21	5
„ Atlas of Morocco	65	63	10	30	10	26	23	22	5
Var. *mauritanicus.*									
♀ Oran (type)	70	63	10	31	11	25	23	21	4
„ „ „	62	62	10	29	11	25	23	20	4
♂ St. Denis le Sig, Oran . . .	65	63	10	28	10	26	23–24	21	4
„ S. Cruz, Oran	59	58	10	28	10	24	25–26	23	4
Hgr. „ „	48	60	10	29	11	31	25	22	5
„ „ „	47	57	10	28	11	24	24	22	4
Yg. „ „	43	63	10	28	9	25	22–23	22	4
„ „ „	43	65	10	30	10	27	23–24	20	5
„ „ „	37	58	10	32	9	28	22–24	21	4
♀ Daya, Oran	77	55	10	30	11	27	23	21	4
„ „ „	74	53	10	31	12	27	24–25	22	4
♂ La Senia, Oran	59	60	10	29	9	23	25–26	20	4

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	1.	2.	3.	4.	5.	6.	7.	8.	9.
♀ La Senia, Oran	61	61	10	30	12	26	22–24	20	4
♀ Kralfalla, Oran	63	53	10	30	9	25	22–23	20	4
♂ Guelt-es-Stal, C. Plateau	72	64	10	28	13	30	24–23	21	4
Var. *blanci.*									
♂ Tunis (type)	61	58	10	29	11	30	24–21	19	4
Yg. „ „	44	58	10	28	10	25	24–25	22	4
„ „ „	38	57	10	29	10	24	22–21	21	4
♂ Nabeul, Tunisia	80	54	10	30	9	24	23–22	21	4
„ „ „	69	60	10	28	11	27	21–20	22	4
♀ „ „	81	54	10	30	10	25	22–21	19	4
„ „ „	75	55	10	30	10	26	18–19	22	4
♂ Cap Bon, Tunisia, **L.M.**	80	65	10	27	10	22	21–22	23	4
„ „ „ „	75	67	10	29	9	30	23–25	20	4
♀ „ „ „	76	65	10	30	8	29	23	20	4
♂ Tunisia, **P.M.**	90	57	10	27	11	23	24–25	20	4
„ „ „	72	56	10	28	9	30	23–24	22	4
♀ „ „	94	68	10	29	10	23	23–22	22	4
Var. *lineomaculatus.*									
♂ Tangier	70	64	10	29	7	24	24–22	22	5
„ „	67	64	8	29	9	28	26–24	21	4–6
„ „	67	56	10	28	10	21	25	20	4
„ „	66	67	10	30	11	24	24–25	22	5–4
„ „	51	72	10	29	10	26	24	21	4
♀ „	59	68	10	29	11	27	24–26	20	5–4
„ „	59	63	10	31	9	28	25	23	5–4
„ „	50	70	10	30	11	24	22–23	22	4–5
Yg. „	43	66	10	31	10	26	22	19	4
♀ Mogador (type), **P.M.**	63	55	10	30	9	24	22	21	4
♂ „	75	62	10	29	12	23	24–23	20	5
„ „	70	60	10	31	10	31	25–26	21	4
„ „	67	59	10	31	9	27	27–25	22	4
„ „	62	58	10	29	10	24	22–21	23	4
„ „	62	68	10	30	9	28	25	20	5–4
„ „	59	60	10	30	11	24	23	23	4
♀ „	53	52	10	29	12	24	20	20	4
„ „	53	50	10	29	9	28	20	21	4
„ „	51	53	10	31	10	21	24–22	22	4
„ City of Morocco	72	51	10	31	9	25	20–22	19	4
„ „ „	69	57	10	29	9	23	22–23	22	4

1. Length from snout to vent (in millimetres). 2. Scales across middle of body. 3. Longitudinal series of ventral plates. 4. Transverse series of ventral plates. 5. Plates in collar. 6. Gular scales in a straight median series. 7. Femoral pores (right and left if differing). 8. Lamellæ under fourth toe. 9. Upper labials anterior to centre of eye (right and left if differing).

Same explanation for the following tables.

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The six forms here defined are not always easy to distinguish, owing to intergradation. The following synopsis will help in their identification.

I. Scales in middle of body smooth or feebly keeled: if strongly keeled, convex; tail of young red.

Subocular not reaching the oral border, or entering it very narrowly; suture between the nasals $\frac{1}{3}$ to $\frac{1}{2}$ the length of the frontonasal . . . . . *Forma typica.*

Subocular largely bordering the mouth; suture between the nasals rarely more than $\frac{1}{3}$ the length of the frontonasal Var. *belli*, Gray.

Subocular separated from the oral border by a small shield detached from it; suture between the internasals $\frac{1}{4}$ the length of the frontonasal . . . . . Var. *atlanticus*, Blgr.

II. Scales in middle of body flat, with strong, well-defined keels.

Subocular bordering the mouth; tail red in the young Var. *mauritanicus*, Doum.

Subocular usually not reaching the mouth; prefrontals in contact with each other; tail blue in the young . Var. *blanci*, Doum.

Subocular usually not reaching the mouth; prefrontals often separated by one or two shields; frontonasal often divided into two; tail red in the young . . . Var. *lineomaculatus*, D & B.

2. ACANTHODACTYLUS TRISTRAMI.

? Scapteira leiocerca, Gray, Ann. N. H. i, 1838, p. 281.

Zootoca tristrami, Günth. Proc. Zool. Soc. 1864, p. 491; Tristram, Faun. Palest. pl. xvi, fig. 2 (1884).

Acanthodactylus dorsalis, Peters, Mon. Berl. Ac. 1869, p. 62.

Acanthodactylus tristrami, Bouleng. Proc. Zool. Soc. 1881, p. 746, pl. lxiv, fig. 1; Lataste, Ann. Mus. Genova (2) ii, 1885, p. 482; Bouleng. Cat. Liz. iii, p. 68 (1887), and Bull. Soc. Zool. France, 1918, p. 147.

Lacerta platyura, Hempr. & Ehrenb. Symb. Phys., Zool., Amph. pl. ii, fig. 3 (1899).

Habit robust, body depressed. Head about $1\frac{1}{3}$ to $1\frac{1}{2}$ times as long as broad, its length 4 to $4\frac{3}{5}$ times in length to vent, its depth equal to the distance between the anterior corner or the centre of the eye and the tympanum; a rather feeble concavity between the prefrontals and along the anterior half of the frontal; snout obtusely pointed, with obtuse canthus and feebly concave loreal region; nasals not or but very feebly swollen. Pileus $1\frac{3}{4}$ to 2 times as long as broad. Neck as broad as the head or a little broader. The hind limb reaches the axil or the shoulder in males as in females; foot $1\frac{1}{6}$ to $1\frac{1}{3}$ times as long as

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the head; fourth toe, from the base of the fifth, as long as the head or a little longer. Tail $1\frac{1}{5}$ to $1\frac{1}{2}$ times as long as head and body.

Upper head-shields convex. Suture between the nasals $\frac{1}{4}$ to $\frac{2}{5}$ the length of the frontonasal, which is broader than long, and a little broader than the internarial space; prefrontals as long as broad or a little longer than broad, and forming a median suture; frontal as long as or shorter than its distance from the end of the snout, $1\frac{3}{4}$ to 2 times as long as broad, rounded or truncate in front, narrow behind; parietals as long as broad, outer border straight or concave. Two large supraoculars, preceded and followed by small shields* and granules as in *A. vulgaris* and bordered on the outer side by one or two series of granules; the anterior supraocular as long as or a little longer than its distance from the second loreal; 6 or 7 superciliaries, first longest. Anterior loreal much shorter than second; 4 upper labials† anterior to the subocular, fourth longest; subocular sharply keeled below the eye, entering the oral border, often rather largely, between the fourth and fifth upper labials. A large, keeled upper temporal, usually followed by a smaller one; temporal scales granular, convex, upper minute, lower much larger; tympanic shield usually present; auricular denticulation absent or very slightly indicated.

5 pairs of chin-shields, the three first in contact in the middle. 19 to 26 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate, juxtaposed in front, enlarged and imbricate towards the collar; gular fold absent. Collar free or attached in the middle, curved or angular, composed of 7 to 11 plates.

Scales granular on the nape and sides, larger and flat, round and juxtaposed or subimbricate on the back, largest and often pointed towards the ventrals, all perfectly smooth; 58 to 65 scales across the middle of the body. Ventral plates in regular longitudinal and transverse series, all except the outermost much broader than long, the largest fully twice as broad as long, in 10 longitudinal and 26 to 33 transverse series. 3 to 5 transversely enlarged preanal plates in a median series.

18 to 24 femoral pores on each side, the two series meeting or very narrowly separated in the middle. Digits with 3 series of scales, very feebly denticulate on each side; 19 to 22 tricarinate lamellæ under the fourth toe.

Posterior caudal scales feebly keeled, oblique and longer than broad, the basals perfectly smooth and as long as broad; 28 to 38 scales in the fourth or fifth whorl.

* The first supraocular sometimes represented by 2 or 3 shields only.

† 3 on one side in a female from Mt. Hermon.

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Greyish, brownish, or reddish above, sides and limbs with round white spots; back with small black dots irregularly scattered or with large squarish or X-shaped black spots forming two or four longitudinal series, accompanied by whitish dark-edged spots; lower parts white. The livery of the young is still unknown.

Measurements (in millimetres):

	♂	♂	♀	♀
From end of snout to vent . .	86	77	83	70
„ „ „ fore limb .	32	29	31	25
Length of head	20	19	19	16
Width of head	15	15	14	11
Depth of head	11	11	11	9
Fore limb	31	28	30	26
Hind limb	50	47	46	42
Foot	24	23	22	21
Tail	130	—	110	102

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♀ Lebanon (type) .	67	62	10	28	9	24	18–19	22	4
♂ Kefr Hawar-Artuz .	77	63	10	26	7	25	21	20	4
♀ Baalbek-Shtora .	69	62	10	30	10	26	23–21	20	4
♂ Mt. Hermon . .	86	58	10	31	9	23	20	20	4
„ „ . .	83	65	10	32	11	24	21–20	22	4
♀ „ . .	70	60	10	33	8	24	24–22	21	4
„ „ . .	58	59	10	31	7	19	18–19	19	4–3

In addition to the above specimens I have examined the types of *A. dorsalis*, Peters (*L. platyura*, Hempr. & Ehrenb.) preserved in the Berlin Museum.

Habitat.—The Lebanon, between 2000 and 3000 metres, and neighbouring parts of Syria.

A. tristrami is one of the largest and heaviest Acanthodactyls. It is closely allied to *A. vulgaris*, from which it is easily distinguished by the smooth scales on the upper surface of the anterior fourth of the tail, and more nearly to the var. *belli* from Algeria than to the typical form from Spain and Portugal.

3. ACANTHODACTYLUS BOUETI.

Acanthodactylus (*Latastia*) *boueti*, Chabanaud, Bull. Mus. Paris, 1917, p. 87, figs., and p. 226; Bouleng. Bull. Soc. Zool. France, 1918, p. 147.

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Habit robust. Head $1\frac{1}{3}$ to $1\frac{3}{5}$ times as long as broad, its length 4 to $4\frac{2}{3}$ times in length to vent, its depth equal to the distance between the anterior corner or the centre of the eye and the tympanum; snout short, very obtuse, as long as the postocular part of the head, about twice as long as broad. Neck narrower than the head. The hind limb reaches the axil or the shoulder in females, the collar in males; foot a little longer than the head. Tail $1\frac{2}{3}$ to $1\frac{3}{4}$ times as long as head and body.

Suture between the nasals not more than $\frac{1}{2}$ the length of the frontonasal, which is broader than long; prefrontals strongly keeled, narrow, more than twice as long as broad, separated by two azygos shields; frontal shorter than its distance from the end of the snout, nearly twice as long as broad, bifid and bicarinate in front, narrow behind; parietals longer than broad, their outer portion broken up into small shields; interparietal rather large, in contact with a small occipital, or narrowly separated from it. Only one large supraocular (corresponding to the third), sometimes with a very short or crescentic vestige of a second (corresponding to the second), the greater part of the supraocular region covered with small granular scales, of which 2 or 3 series separate the supraocular from the superciliaries; 5 superciliaries, first nearly as long as the others together. Anterior loreal shorter than the second; 4 or 5 upper labials anterior to the subocular, which broadly enters the oral border; temporal scales granular, upper minute, lower much larger; tympanic shield present; auricular denticulation absent.

5 pairs of chin-shields, the first three in contact in the middle.* 20 to 25 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate; gular fold distinct. Collar attached in the middle, curved, composed of 6 to 8 plates.

Scales granular on the nape, larger, rhombic, subimbricate and strongly keeled on the body; 63 to 73 scales across the middle of the body. Ventral plates in regular longitudinal and transverse series; in 8 longitudinal series, the plates of the second and third series from the middle line broader than long, and 27 to 30 transverse series. A transversely enlarged preanal plate preceded by one or two others, which are narrower. 14 to 18 femoral pores on each side. Digits as in *A. vulgaris*; 16 to 18 tri- or quinquecarinate lamellæ under the fourth toe.

Caudal scales strongly keeled, the basal subcaudals smooth; 25 to 35 scales in the fourth whorl.

* 5 on one side and 6 on the other in two specimens (male and female), 3–4 in contact.

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Adult brown or reddish brown above, with 6 light longitudinal streaks, and series of black spots between them; limbs with light spots.

Young black above with six sharply defined white longitudinal streaks on the neck and body and round white spots on the limbs; tail reddish.

Measurements (in millimetres):

	♂	♀
From end of snout to vent . . .	53	63
„ „ „ fore limb . .	20	22
Length of head	13	15
Width of head	8	10
Depth of head	6	9
Fore limb	20	21
Hind limb	30	33
Foot	15	16
Tail	82	—

Particulars of Specimens Examined, all Types.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ **P.M.**	53	63	8	26	7	23	18–17	18	4
„ „	51	65	8	27	7	25	16–18	17	4
♀	63	71	8	27	8	24	16	18	5
„ **P.M.**	59	63	8	30	6	20	14–15	16	4
„ „	55	64	8	28	7	22	15	16	4
Hgr. „	38	73	8	29	7	20	18–17	17	4

Habitat.—Dahomey.—Types in the Paris Museum.

This species, the southernmost of the genus, is evidently derived from *A. vulgaris*, from which it differs, as well as from the other members of the genus, in the complete or nearly complete disintegration of the second supraocular, and in the reduced number of femoral pores.

4. ACANTHODACTYLUS SAVIGNYI.

Lacerta savignyi, Aud. Descr. Egypte, Rept., Suppl. p. 172, pl. i, fig. 8 (1829); M.-Edw. Ann. Sc. Nat. xvi, 1829, pp. 73, 85.

Acanthodactylus vulgaris, var. B., part., A. Dum. Cat. Méth. Rept. p. 126 (1851).

Acanthodactylus savignyi, part., Vaill. Miss. Révoil Pays Çomal., Rept. p. 19 (1882).

Acanthodactylus vaillanti, Lataste, Ann. Mus. Genova (2) ii, 1885, p. 509.

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Acanthodactylus savignyi, Bouleng. Cat. Liz. iii, p. 63 (1887), and Bull. Soc. Zool. France, 1918, p. 149.

Acanthodactylus pardalis, part., Anders. Zool. Egypt, Rept. p. 155 (1898).

Acanthodactylus savignyi, var. *oranensis*, Doumergue, Erp. Oran. p. 174, pl. xii, figs. 1–3 (1901).

Habit rather slender, body feebly depressed. Head $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as broad, its length $4\frac{1}{3}$ to $4\frac{1}{2}$ times in length to vent, its depth equal to the distance between the anterior corner or the centre of the eye and the tympanum; a deep lanceolate concavity from the frontonasal to the middle of the frontal; snout pointed, as long as or a little longer than the postocular part of the head, with rather sharp canthus and feebly concave loreal region; nasals feebly swollen. Pileus twice as long as broad. Neck as broad as or a little narrower than the head. The hind limb reaches the collar or between the collar and the ear in males, the shoulder or the collar in females; foot $1\frac{1}{4}$ to $1\frac{2}{5}$ times as long as the head; fourth toe, from the base of the fifth, a little longer than the head. Tail $1\frac{1}{2}$ to 2 times as long as head and body.

Upper head-shields convex, rarely slightly rugose in the adult. Suture between the nasals $\frac{1}{4}$ to $\frac{1}{2}$ the length of the frontonasal, which is as long as broad or a little broader than long, a little broader than the internarial space and frequently divided into two by a median cleft*; nearly constantly two azygos shields separate the prefrontals,† which are longer than broad; frontal as long as or a little shorter than its distance from the end of the snout, $1\frac{3}{4}$ to 2 times as long as broad, rounded, truncate, or notched in front, narrow behind; parietals as long as broad or a little longer than broad, often forming a very short suture or separated by a series of granules behind the interparietal, upper border straight or concave.‡ First and fourth supraoculars entirely broken up into a great number of granules or of granules and small shields; second supraocular as long as or slightly shorter than its distance from the second loreal; 2 or 3 series of granules, rarely 1, between the supraoculars and the superciliaries, which are 6 or 7, rarely 5, in number, the first the longest. Anterior loreal shorter than the second; 4 upper labials anterior to the subocular, which narrowly borders the mouth. A large

* Divided into three in one specimen.

† In 2 young specimens there is a single unpaired shield and the prefrontals are in contact behind it; there are 3 unpaired shields in one specimen.

‡ Doumergue is mistaken in stating (p. 175) "Côtés latéraux des pariétales droits." They are often strongly concave in the specimens received from him.

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upper temporal, sometimes followed by a smaller one; temporal scales granular, smooth or obtusely keeled, upper very small, lower large; a narrow tympanic shield; no auricular denticulation.

5 pairs of chin-shields, the 3 first in contact in the middle; 23 to 30 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate, juxtaposed in front, gradually enlarged and imbricate towards the collar; gular fold distinct. Collar free, curved, composed of 8 or 9, rarely 10 or 11, large plates.

Scales granular on the nape, rhombic and flat on the back, a little larger and imbricate posteriorly, all strongly keeled, the keels forming oblique lines towards the spine; scales much larger and smooth towards the ventrals; 52 to 60 scales across the middle of the body. Ventral plates in straight longitudinal and transverse series, all except the outermost much broader than long, the largest twice as broad as long; the series across the middle of the body composed of 10, rarely 12, plates; 28 to 31 transverse series in males, 30 to 33 in females. 3 or 4 unpaired preanal plates, the one in front of the vent large and usually much broader than long.*

20 to 25 femoral pores on each side,† the two series meeting in the middle. Digits with 3 series of scales, rather strongly denticulate, the fringe much stronger on the outer side of the fourth toe, but shorter than the diameter of the toe; 19 to 22 unicarinate lamellæ under the fourth toe.

Upper caudal scales very oblique and very strongly and diagonally keeled, those at the base as long as broad or a little broader than long; one or two series of small scales on the median line of the basal part of the tail; basal subcaudals smooth or faintly keeled; 22 to 26 scales in the fourth or fifth whorl.

Young dark grey, with 6 white longitudinal streaks on the nape and 4 on the body; a white streak from the ear to the thigh, and a series of round white spots above it; the space between each pair of dorsal streaks blackish, with a series of whitish spots; limbs with round white spots. Tail blue, entirely or towards the end.

The markings of the young sometimes persist in the adult, but as a rule they become effaced or replaced by dark and light spots forming a reticulation; the ground colour of the upper parts varies from grey to rufous; the series of lateral spots of the young, if present, are yellow or blue. Lower parts white, sometimes washed with bluish.

* Longitudinally divided into two in one specimen.

† 19 to 28 according to Doumergue.

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Measurements (in millimetres):

	♂.	♀.
From end of snout to vent . . .	65	58
„ „ „ fore limb . .	25	21
Length of head	15	13
Width of head	10	8
Depth of head	7	6
Fore limb	20	19
Hind limb	37	32
Foot	20	18
Tail	125	103

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Oran (type of v. *oranensis*)	65	52	10	30	8	25	22	20	4
„ „ „	65	57	10	29	9	27	22	21	4
„ „ „	60	58	10	28	8	29	25	20	4
„ „ „	59	54	10	30	9	23	21 22	20	4
„ „ „	59	60	10	31	8	30	24	20	4
♀ „ „	58	59	10	32	9	25	22	21	4
„ „ „	54	58	10	32	9	24	21	22	4
„ „ „	54	55	10	33	10	28	22 21	20	4
„ „ „	53	53	10	32	8	26	22 23	20	4
„ „ „	50	55	12	33	9	25	21	21	4
„ „	54	54	12	30	9	26	21 20	20	4
♂ W. desert of Algeria, **P.M.**	74	58	10	30	9	27	24	19	4
„ Algeria? (type of *A. vaillanti*), **P.M.** . . .	75	60	10	30	11	26	23	21	4

The name under which I describe these Algerian specimens has been applied in the past to very different lizards, and has given rise to much discussion.

I have first of all no hesitation in regarding the *Acanthodactylus* discovered near Oran by M. Doumergue as specifically identical with *A. vaillanti*, Lataste, stated to be from Somaliland. Geographical considerations alone seem to have induced Doumergue to propose for it the name of *oranensis*. Does, however, *A. vaillanti* really come from Somaliland?

In his report on the collection made in Somaliland by Révoil, Vaillant has recorded several specimens of *Acanthodactylus*, under the names of *A. vulgaris*, *A. savignyi*, and *A. savignyi*, var. *schreiberi*. These specimens have since been re-examined by Lataste and by Anderson, and the two former names have been shown to refer partly to *A. pardalis*, partly (one specimen only) to a species described as new by Lataste under the name of *A. vaillanti*, the third to *A. scutellatus*.

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The presence of Algerian species of *Acanthodactylus* in Somaliland, in company with *Psammodromus algirus*, which appears in the same list, would be highly surprising from our present zoo-geographical standpoint, and, although many hundreds of lizards have since Révoil's time been received from various parts of Somaliland, and reported upon in 22 different papers, no confirmation of the occurrence of any *Acanthodactylus* or *Psammodromus* has appeared. But the form named *A. raillanti* has since been re-discovered at Oran, and the notes published by Lataste and by Anderson show the specimens originally referred to *A. vulgaris* and *A. savignyi* to agree in all particulars with forms characteristic of Algeria (*A. pardalis*, vars. *bedriagæ*, *latastii*, *A. scutellatus*, var. *inornata*). I have therefore not the least doubt that by some mistake, for which I can suggest no explanation, the specimens in question, together with the *Psammodromus algirus*, all of Algerian origin, got mixed up with the Somaliland Collection.

Then as to the identification with *A. savignyi*, which Doumergue has accepted at my suggestion.

We have nothing to go by but the figure in the Description de l'Egypte, which appears to be executed with great care, but does not show the side of the head nor the full number of longitudinal rows of ventral plates. The original specimen has been lost. But, with the exception of the smaller interparietal, everything shown in the figure agrees with the Oran lizard: the general shape, the "facies tout particulier, presque autant de *Latastia* que d'*Acanthodactylus*" according to Lataste's description of *A. raillanti*, the length of the tail,* the shape of the head, the division of the frontonasal and the presence of two shields between the prefrontals (which I have never found in any of the very numerous specimens of *A. pardalis*), the supraocular region with its large granular areas, the gular fold and the fold of the collar, the absence of auricular denticulation, the strong fringe of the toes, the strongly keeled dorsal scales, even the markings on the back,† are characters which we find combined in the Oran species, and in no other, certainly not in *A. pardalis*, to which Lataste and Anderson were inclined to refer Savigny's lizard.

One of Lataste's arguments in favour of identifying Savigny's figure with *A. bedriagæ* (*A. pardalis*), was this: "*A priori* il faut identifier est individu à une des espèces connues d'Egypte; car il n'est pas vraisemblable que, dans un pays aussi exploré, il appartienne à une

* Twice that of head and body; never more than $1\frac{4}{5}$, usually not more than $1\frac{1}{2}$ times in *A. pardalis*.

† "Chez les vieux individus, les bandes se sectionnent de plus en plus, et certains deviennent presque pommelés." Doumergue, op. cit., p. 179.

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espèce qui n'ait pas été retrouvée depuis le commencement du siècle. Les Acanthodactyles sont trop répandus et trop abondants dans les régions qu'ils occupent, et ils vivent trop au grand jour, sur des terrains arides et découverts où rien ne les dérobe à l'œil de l'observateur." Now, in 1885, when Lataste wrote these lines, the Reptilian fauna of Northern Egypt had been less thoroughly surveyed than that of Northern Algeria. And yet, a lizard which agrees with Savigny's figure, and which, according to Doumergue, who first described it as late as 1901, is readily recognizable in the open, is quite common near Oran, where Lataste himself had collected on two occasions, and it nevertheless escaped the eye of such an expert. We may therefore still entertain the hope that the true *A. savignyi* will some day be found on the north coast of Egypt.

Doumergue says this species is common on sandy soil at Oran and on the littoral, from Camerata to Mostaganem. It is also found in the interior of the province of Oran, at Aïn-Tedales, Sidi-Douma and Daya. A specimen from the "Desert de l'Ouest" (Schousboé) is preserved in the Paris Museum.

A. savignyi is more nearly related to *A. vulgaris*, var. *lineomaculatus*, than to any other form, and may be said to be connected with it to a certain extent, differing principally in the stronger serration of the outer side of the fourth toe. It is noteworthy that the presence of one, two or three small shields between the prefrontals, which is frequent in *A. vulgaris*, var. *lineomaculatus*, and appears only as a rare individual anomaly in the other forms of the genus, has become a constant character in *A. savignyi*.

5. ACANTHODACTYLUS PARDALIS.

Lacerta pardalis, Lichtenst. Verz. Doubl. Mus. Berl. p. 99 (1823); Hempr. & Ehrenb. Symb. Phys., Zool., Amph. pl. ii, fig. 2 (1899).

Lacerta deserti (non Lepéch.), M.-Edw. Ann. Sc. Nat. xvi, 1829, pp. 79, 86, pl. vi, fig. 8, and pl. viii, fig. 6; Strauch, Erp. Alg. p. 32 (1862).

Scapteira maculata, Gray, Ann. N. H. i, 1838, p. 281.

Acanthodactylus savignyi, part., Dum. & Bibr. Erp. Gén. v, p. 746; Guichen. Explor. Sc. Alg., Rept. p. 14 (1850); Vaillant, Miss. Révoil Pays Çomal., Rept. p. 19 (1882).

Acanthodactylus savignyi, Gray, Cat. Liz. p. 37 (1845); Lichtenst. Nomencl. Rept. Mus. Berl. p. 15 (1856); Strauch, op. cit., p. 36; Lataste, Ann. Mus. Genova (2) ii, 1885, p. 483.

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Zootoca deserti, Günth. Proc. Zool. Soc. 1859, p. 470, and 1864, p. 488.

Acanthodactylus bedriagai, Lataste, Le Natur. 1881, p. 357; Bouleng. Proc. Zool. Soc. 1881, p. 746, pl. lxiii, fig. 1; Boettg. in Kobelt, Reise Alg. Tunis, p. 469 (1885).

Acanthodactylus vulgaris (non D. & B.), Vaill. l.c.

Acanthodactylus pardalis, Bouleng. Cat. Liz. iii, p. 65 (1887), and Tr. Zool. Soc. xiii, 1891, p. 131; Anders. Proc. Zool. Soc. 1892, p. 14; Peracca, Boll. Mus. Torin. ix, 1894, No. 167, p. 7; Werner, Jahrb. Nat. Ver. Magdeb. 1896–97, p. 128 (1898); Anders. Zool. Egypt, Rept. p 151, pl. xxi (1898); Doumergue, Erp. Oran. p. 160, pl. xi (1901); Werner, Zool. Jahrb., Syst. xxvii, 1909, p. 605; Bouleng. Bull. Soc. Zool. France, 1918, p. 147.

Acanthodactylus pardalis, var. *spinicauda*, *intermedius*, Doumergue, op. cit., pp. 162, 163.

Acanthodactylus pardalis, vars. *bedriagæ*, *maculatus*, *latastii*, *spinicauda*, Bouleng. Bull. Soc. Zool. France, 1918, p. 152.

Owing to the variability of this species, the following detailed description is based exclusively on Egyptian specimens, which represent in the narrowest sense the *Lacerta pardalis* of Lichtenstein, the types of which I have examined in the Berlin Museum.

Habit stout, body depressed. Head $1\frac{1}{3}$ to $1\frac{1}{2}$ times as long as broad, its length 4 to $4\frac{2}{5}$ times in length to vent, its depth equal to the distance between the anterior corner or the centre of the eye and the tympanum; a more or less distinct lanceolate concavity from the frontonasal to the middle of the frontal; snout obtusely pointed, as long as the postocular part of the head, with rather sharp canthus and feebly concave loreal region; nasals feebly swollen. Pileus $1\frac{3}{4}$ to 2 times as long as broad. Neck as broad as the head or broader. The hind limb reaches the shoulder, the collar, or, rarely, a little beyond the collar in males, the elbow, the axil, the shoulder, or, rarely, the collar in females; foot 1 to $1\frac{1}{5}$ times as long as the head; fourth toe, from the base of the fifth, as long as the head or a little shorter. Tail $1\frac{1}{3}$ to $1\frac{3}{4}$ times as long as head and body.

Upper head-shields convex, rarely slightly rugose in the adult. Suture between the nasals $\frac{1}{6}$ to $\frac{1}{2}$ the length of the frontonasal, which is broader than long and a little broader than the internarial space; prefrontals usually a little longer than broad and forming a median suture; frontal as long as or shorter than its distance from the end of the snout, $1\frac{1}{2}$ to 2 times as long as broad, rounded or truncate in front, narrow behind; parietals as long as broad, or, usually, broader

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than long, outer border straight or concave. First supraocular usually divided into two, sometimes entire,* rarely disintegrated into several small shields and granules,† as long as or a little shorter than second; fourth always replaced by granules, with or without a small shield; one or two series of granules between the supraoculars and the superciliaries, sometimes three behind, some of the granules usually penetrating between the first supraocular and the first superciliary; 6 or 7, exceptionally 5 or 8, superciliaries, first longest and in contact with the first supraocular. Anterior loreal‡ much shorter than the second; 4 upper labials, rarely 3 or 5, anterior to the centre of the eye; subocular sharply keeled below the eye, usually wedged in between the fourth and fifth upper labials, rarely separated from the oral border by a small additional labial or narrowly entering it.§ A large upper temporal, followed by a small one; temporal scales granular, convex and smooth, upper very minute, lower large; tympanic shield sometimes present, usually absent; 4 or 5 short, rounded or obtusely pointed lobules form a denticulation in front of the tympanum.

5 pairs of chin-shields, the 3, or rarely 2, first in contact in the middle; 23 to 34 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate, juxtaposed in front, gradually enlarged and imbricate towards the collar; gular fold absent or slightly indicated. Collar free or attached in the middle, curved or angular, composed of 10 to 13 plates.

Scales granular and smooth, convex or flat, sometimes subimbricate and obtusely keeled on the posterior part of the back, a little smaller on the upper part of the sides, largest towards the ventrals, into which they sometimes gradually merge; 52 to 68 scales across the middle of the body. Ventral plates in regular longitudinal and straight or somewhat angular transverse series, all except the outermost broader than long, but not twice as broad as long, or only a few so broad, the series across the middle of the body composed of 12, rarely 14, plates; 27 to 32 transverse series. 1 to 4, usually 3, unpaired preanal plates, the one in front of the vent usually broader than long.

15 to 24 femoral pores on each side, the two series meeting or narrowly separated in the middle. Digits with 3 series of scales,

* In 2 specimens from Alexandria, in 1 from Maryut.

† One specimen from Alexandria, another from Maryut.

‡ Absent on both sides in one specimen from Alexandria, on one side in another.

§ In 1 male from Alexandria, in 2 females from Maryut.

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feebly denticulate on each side, usually as in *A. vulgaris*, sometimes a little more distinctly on the outer side of the fourth toe; 16 to 21 unicarinate, rarely tricarinate lamellæ under the fourth toe.

Upper caudal scales very oblique and diagonally keeled, those at the base broader than long and often very obtusely keeled, lower smooth in the basal part of the tail; 20 to 26 scales in the fourth or fifth whorl.

Young from Egypt are still unknown,* but we may surmise from the markings of the adult that they have 8 pairs of light longitudinal streaks, with occasionally an unpaired one on the nape, and that the tail is probably not red, as no trace of that colour is ever seen in the adult.

Adult grey, greenish grey, or fawn-colour above, with blackish spots or a brown-black network and four dorsal and one or two lateral series of round or oval longitudinal series of white, yellow, or orange spots; sometimes traces of a median light streak on the nape; limbs with round light spots. Lower parts white, throat, breast and sides of belly sometimes speckled with grey.

Measurements (in millimetres):	♂	♀
From end of snout to vent	67	65
„ „ „ fore limb	24	22
Length of head	16	15
Width of head	12	11
Depth of head	9	8
Fore limb	21	20
Hind limb	36	32
Foot	17	16
Tail	100	90

The specimens from Palestine are referable to the typical form from Egypt, differing only in the average larger size,† by which, along with the rather stout habitus, they approach the var. *bedriagæ*. The ventral plates are identical, the dorsal scales are smooth and convex; the first supraocular is entire in 3 specimens, bisected in 2, and broken up into 8–10 scales in one; the subocular borders the lip in one

* This is indeed very remarkable. Lataste, who failed to obtain any young in Algeria, ascribed the fact to the early season at which he collected. Anderson met with the same failure in Egypt, and he suggested the paucity of eggs laid by the female as a possible explanation why the young are so seldom observed; but surely there must be at least as many young as adults in existence, and *A. pardalis* is quite abundant in the localities it frequents.

† Peracca records a male specimen measuring 81 millimetres from snout to vent.

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specimen.* The hind limb reaches the shoulder in males, the elbow in females; but in four males examined by Peracca it reaches the collar or a little beyond, the variation being therefore as in the specimens from Egypt.

62 to 66 scales across the middle of the body, 30 to 34 transverse series of ventral plates, 11 to 14 plates in the collar, 15 to 24 femoral pores, 17 to 19 lamellæ under the fourth toe.

As regards the coloration† the light spots are more or less effaced, except in one male from Beersheba.

Measurements (in millimetres):	♂	♀
From end of snout to vent	70	70
„ „ „ fore limb	25	26
Length of head	15	16
Width of head	12·5	12
Depth of head	10	10
Fore limb	23	22
Hind limb	35	34
Foot	18	18
Tail	92	93

The habitat of the typical form extends from Palestine to Tripoli. A female species from the French Sudan (coll. Dybowski), in the Paris Museum, appears to be referable to it.

This is the *Lacerta deserti* of Milne-Edwards.

Var. BEDRIAGÆ, Lataste.

The large massive form inhabiting the Plateaux of Algeria, for which I use the name in the restricted sense adopted by Lataste in 1885, is very nearly related to the typical form, but differs chiefly in the smaller ventral plates, which are but little broader than long, none of them ever twice as broad as long, and form 14, exceptionally 12 or 16, longitudinal and 31 to 36 transverse series. The scales are convex or flat, juxtaposed or subimbricate posteriorly, smooth or very obtusely keeled, and number 53 to 63 across the middle of the body. 10 to 15 plates in the collar, which is angular and attached in the middle, the median plates usually barely differentiated from the gular scales. 26 to 36 gular scales in a straight line. 16 to 23 femoral pores on each side. 18 to 21 lamellæ under the fourth toe. First supraocular sometimes entire, more frequently bisected. In one specimen, from El Guerah, and in one labelled Algeria, the subocular

* Also in one from Jaffa mentioned by Werner, and in the types of Milne-Edwards' *Lacerta deserti*.

† A specimen from Beersheba is figured in P.Z.S. 1881.

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reaches the oral border, but otherwise it is wedged in between the fourth and fifth upper labials or, more frequently, separated from the mouth by a small additional upper labial. The hind limb reaches the shoulder or the collar, rarely a little beyond, in males, the axil in females; fourth toe $\frac{3}{4}$ to once the length of the head. Tail $1\frac{1}{5}$ to $1\frac{1}{2}$ times as long as head and body.

Coloration much as in the typical form, some individuals more like the Egyptians, others more like the Syrians.

Measurements (in millimetres):

	♂	♀
From end of snout to vent . . .	75	75
„ „ „ fore limb . .	28	28
Length of head	18	17
Width of head	14	13
Depth of head	12	10
Fore limb	25	23
Hind limb	40	36
Foot	20	18
Tail	103	90

Habitat.—The high plateaux of Algeria, in the Provinces Oran, Algiers and Constantine. Apparently confined to the extreme east of the former province.

I provisionally refer to this variety two male specimens from Tamesmida, Tunisia, perhaps not full-grown, to one of which allusion has been made by Lataste in 1885 (l.c. p. 490). The ventral plates are very small, many not or but little broader than long, in 14 longitudinal and 34 or 35 transverse series. The collar is very broadly attached in the middle, distinct only on the sides. The scales are granular and very feebly keeled, 60 to 65 across the middle of the body. One of the specimens has no enlarged preanal, the other has only one, twice as broad as long. First supraocular broken up into two. A small supplementary labial between the fourth and fifth separating the subocular from the mouth. Auricular denticulation moderate or feeble. Hind limb reaching the shoulder; fifth toe a little shorter than the head.

The coloration differs from that of any of the specimens referred by Lataste to his var. *deserti*.* It is by no means effaced, but very similar to that of the var. *bedriagæ*. Grey above, with intensely black spots forming a sort of network, with 8 longitudinal series of round or oval white spots, with others in addition.

* Which is described further on under the name of var. *latastii*.

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Measurements (in millimetres):

From end of snout to vent	59
„ „ „ fore limb	22
Length of head	14
Width of head	10
Depth of head	7
Fore limb	19
Hind limb	30
Foot	16
Tail	72

Var. MACULATUS, Gray.

This variety differs little from the typical form; the shape of the head is the same and the snout is exactly as long as the postocular part of the head. But the form is not quite so heavy, the length of the head is $3\frac{1}{2}$ to 4 times in length to vent in males, the size is smaller, the tail is $1\frac{1}{4}$ to $1\frac{4}{5}$ times as long as head and body, and the dorsal scales are rhombic and more or less strongly keeled. The coloration, as in the typical form and the var. *bedriagæ*, shows a marked contrast of dark and light spots, usually forming regular longitudinal series. The young is black above, with four white dorsal streaks, in addition to which a vertebral streak, bifurcate in front, is present on the nape and the anterior part of the back, and one white streak on each side; a series of round white spots between the outer dorsal and the lateral streaks; the inner dorsal pair of streaks unites into one on the base of the tail; limbs with large round white spots.

The first supraocular is usually divided into two or three; the subocular rests on the fourth and fifth, or fourth, fifth and sixth (rarely fifth and sixth, or fifth, sixth and seventh) upper labials; in one specimen* it reaches the oral border. 41 to 60 scales across the middle of the body. 16 to 25 femoral pores. 18 to 22 lamellæ under the fourth toe.

I cannot separate from this form, known from Tripoli and Tunis, specimens from the interior of the Province Oran (var. *intermedius*). The specimens I have examined have strongly keeled scales, but Doumergue says they are sometimes smooth or feebly keeled, in which case I do not see how they are to be distinguished from the typical form.

* From Cabes; also in one from Mecheria, Oran.

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Measurements (in millimetres):

	1.	2.	3.	4.
From end of snout to vent . .	50	57	62	57
„ „ „ fore limb . .	19	20	22	21
Length of head	13	13	15	13
Width of head	9	9	10	9
Depth of head	7	7	8	7
Fore limb	18	19	21	19
Hind limb	31	29	34	30
Foot	17	15	17	16
Tail	90	75	78	75

1. ♂, Mettamer, Tunisia. 2. ♀, Duirat, Tunisia. 3. ♂, El Kreider, Oran. 4. ♀, Mecheria, Oran.

Var. LATASTII, Boulenger.

Lataste has proposed to separate the examples from Southern Tunisia and the Algerian Sahara as a var. *deserti** from the Egyptians, his var. *savignyi*, with the following definition:—

Taille grande et forme élancée. Ecailles dorsales peu régulières et vaguement carénées. Coloration assez intense et plus ou moins pommelée . . . . . var. *savignyi*.
Taille petite et forme grêle. Ecailles dorsales régulièrement rhomboïdales et nettement carénées. Coloration plus ou moins effacée. var. *deserti*.

This definition leaves out of consideration too many exceptions to be of much use. Thus the following table shows the lizards from Biskra to be as large as those from Egypt; the keels on the scales are more often absent or indistinct than decidedly marked,† and some of the specimens from the Plateaux of Algeria,‡ which were included under the var. *deserti*, are as vividly coloured and marked in precisely the same fashion as the Egyptians. It is, in fact, almost impossible to distinguish some of the Tunisian and Algerian specimens from the typical form, but they are linked by close gradation with the better-defined desert lizards, extreme specimens of which, in the shape of the

* This name cannot be used in this sense, as Milne-Edwards's *Lacerta deserti* is not Lepéchin's, and is, besides, based on specimens from Olivier's collection from the "Empire Ottoman," probably Syria.

† Lataste had probably in mind the specimens now referred by me to the var. *maculatus*.

‡ Wed Dermel, Wed Sedeur; also the type of *Zootoca deserti*, Gthr., from Ngoussa, south of the Mzab.

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head, in the small size, and in the effaced or reticulate markings, are not unlike the form of *A. scutellatus* inhabiting the same districts.

I have, however, decided to follow the lead of Lataste and to recognize a Saharian form, which may be described as an ill-defined variety characterized by a usually more pointed snout, a little longer than the postocular part of the head, the average lower number of scales across the body, the often rather more slender toes, sometimes with stronger pectination,* and the frequent absence of regular longitudinal series of light spots on the body.

Habit often rather more slender than in the typical form, and especially than in the var. *bedriagæ*. Head 4 to $4\frac{1}{2}$ times in length to vent in males, $4\frac{1}{6}$ to $4\frac{2}{3}$ times in females, $1\frac{1}{4}$ to $1\frac{2}{5}$ times as long as broad. Tail $1\frac{1}{5}$ to $1\frac{3}{5}$ times the length of head and body. Nasals sometimes rather strongly swollen. Frontonasal sometimes nearly as long as broad; frontal usually shorter than its distance from the end of the snout, $1\frac{3}{4}$ to $2\frac{1}{4}$ times as long as broad; first supraocular more often entire than divided; one series of granules between the supraoculars and the superciliaries, rarely two; auricular denticulation always well marked, the lobules sometimes long and pointed. Collar sometimes free, more usually attached in the middle. Scales granular or rhombic, convex or flat, usually smooth or feebly keeled, rarely rather strongly keeled, 46 to 65 (usually 50 to 58) across the middle of the body. Ventrals in 12 longitudinal series, rarely 14, and 27 to 33 transverse series. 15 to 25 femoral pores on each side. 17 to 23 lamellæ under the fourth toe. Upper caudal scales usually all strongly keeled; 18 to 24 scales in the fourth or fifth whorl.

Coloration usually pale grey or pale buff, rarely with yellow or orange spots on the back, the dark markings usually much effaced or small, or forming a wide-meshed reticulation, sometimes with a tendency to cross-bars; sometimes two series of rather large blackish spots along the back. Young grey, with four white longitudinal streaks on the back (six on the nape) and one on each side, with rows of round white spots between them; limbs with large round white spots; tail bluish towards the end.

Measurements (in millimetres):

	1.	2.	3.	4.
From end of snout to vent . .	69	65	59	62
„ „ „ fore limb .	28	25	24	22
Length of head . . .	17	16	14	14

* Especially in specimens found between Wargla and El Golea, and between Wed Nça and El Alia, in which the lobes of the fringe on the outer side of the fourth toe may be nearly as long as the diameter of the toe.

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	1.	2.	3.	4.
Width of head	13	12	10·5	10
Depth of head	9	9	7	7
Fore limb	25	22	20	20
Hind limb	41	36	35	32
Foot	21	18	17	16
Tail	110	80	88	85

1. ♂, Biskra. 2. ♀, Biskra. 3. ♂, Wargla. 4. ♀, Wargla-El Golea

Habitat.—Tripoli, Southern Tunisia, Algeria in desert tracts on the high plateaux and far into the Sahara.

Var. SPINICAUDA, Doumergue.

This is the most distinct of the varieties of *A. pardalis.*

Head about $1\frac{1}{3}$ times as long as broad; snout a little longer than the postocular part of the head; snout more pointed, nasals more swollen, with the lanceolate concavity very shallow, sometimes hardly distinct. Hind limb longer, reaching the ear in males, the collar in females; foot $1\frac{1}{4}$ to $1\frac{1}{3}$ times the length of the head; fourth toe at least a trifle longer than the head, up to $1\frac{1}{4}$. Tail $1\frac{1}{3}$ to $1\frac{2}{3}$ times as long as head and body, much flattened at the base, especially in males.

First supraocular nearly always entire; one or two series of granules between the supraoculars and the superciliaries; subocular wedged in between the fourth and fifth upper labials, narrowly bordering the mouth in one specimen; a strong auricular denticulation, formed of 4 or 5 obtusely pointed lobules.

26 to 31 gular scales in a straight line; no gular fold; collar attached in the middle, composed of 9 to 12 plates.

Scales rather strongly keeled, at least on the posterior two-thirds of the back, 44 to 56 across the middle of the body. Ventral plates, all except the outermost broader than long, in 12 longitudinal series, in 27 to 29 straight transverse series in males, 31 to 33 in females.

17 to 24 femoral pores on each side. Denticulation a little more developed on the outer side of the fourth toe than on the inner; 20 to 22 tricarinate lamellæ under the fourth toe.

Upper caudal scales strongly keeled, those on the sides just behind the vent with the keels strongly raised, especially in the males, forming very prominent rounded or pointed tubercles, producing a serrated outline on the base of the tail.

Grey or pale buff above, with longitudinal series of yellowish or

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whitish dark-edged spots in a dark network or with six or eight longitudinal series of large ocellar spots.

Measurements (in millimetres):

	♂	♀
From end of snout to vent	54	56
„ „ „ fore limb	22	23
Length of head	13	13
Width of head	10	9·5
Depth of head	7	7
Fore limb	21	19
Hind limb	37	33
Foot	18	16
Tail	92	86

Habitat.—Sahara in the Province of Oran. The localities given by Doumergue are Arba Tahtani, around the Oasis, and El-Abior-Sidi-Sheikh.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
Forma typica:									
♂ Alexandria	68	63	12	29	13	29	23	18	4
„ „	58	56	12	27	11	30	24	17	4
„ „	54	60	12	30	11	30	21	18	3–4
„ „	50	62	12	29	12	27	17–16	20	5–4
„ „	50	60	12	27	13	25	19 20	19	4
♀ „	60	62	12	30	11	30	18–17	18	4
„ „	56	57	12	30	13	28	16 18	18	4
„ „	56	68	14	32	10	23	18 17	18	4
„ „	52	58	12	29	12	25	19	16	4
♂ Maryut	67	60	12	31	13	28	22	20	4
„ „	65	56	12	29	13	26	19–21	19	4
„ „	65	59	12	29	12	33	23	21	4
„ „	59	59	12	28	11	30	19	18	5–4
„ „	59	55	12	31	11	30	22–20	19	4
♀ „	65	56	14	31	11	28	20–19	17	4
„ „	61	56	12	30	10	30	17–18	18	4
„ „	61	52	12	30	11	27	15	21	4
„ „	60	58	12	31	11	30	19	19	5–4
„	58	62	12	32	12	34	19	20	4
„ „	55	54	12	29	11	26	18–17	18	4
„ „	55	57	12	30	10	30	21–19	21	4
♂ Jerusalem	70	62	12	30	14	28	21–20	19	4
„ „	64	62	14	30	12	30	22–23	18	4
♀ „	70	65	12	32	13	33	16–17	19	4
„ „	69	66	12	34	11	32	16–15	17	5–4
♂ Beersheba	71	64	12	32	13	26	19–18	18	4

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	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Beersheba	70	66	12	31	14	33	23–21	18	4
♂ Levant (type of *L. deserti*), **P.M.**	62	56	12	30	13	30	24	18	4
„ „ „ „	62	58	12	29	13	35	19–20	18	4
♀ French Sudan, **P.M.**	56	61	12	33	9	39	21–20	22	5
Var. *bedriagæ.*									
♂ Sersou	64	60	14	31	13	32	21	20	4
„ Batna	72	58	14	32	13	33	23–22	18	5
Hgr. „	44	57	14	33	10	26	18–17	18	5
♂ El Guerah	68	60	12	35	13	30	22–21	21	4
„ „	56	53	12	34	11	26	20	20	5
„ „	56	59	14	32	12	28	16	19	5
♀ „	74	56	14	36	12	28	18–17	20	6–5
„ „	74	58	14	33	12	28	18–16	21	5
♂ Setif	60	54	14	33	15	29	19	20	5
♀ „	75	58	14	34	11	28	18	18	5
„ „	63	63	14	35	13	30	17–18	18	5
♂ Aures Mts., N. of Biskra	75	60	16	34	14	29	19	21	5
„ „ „	68	60	14	34	12	32	20–21	20	5
„ „ „	65	56	14	33	11	29	19–21	20	4–5
„ Algeria	67	62	14	34	12	25	19–18	18	5
„ „	75	54	14	31	11	28	19	21	4–5
♀ „	77	55	14	33	11	29	17–16	19	4
♂ Tamesmida, Tunisia	59	65	14	35	10	30	21–22	20	5
„ „ „	55	60	14	34	12	32	21–20	20	5
Var. *maculatus.*									
Hgr. Tripoli (type)	40	58	12	31	12	30	19	22	5
♂ „ **P.M.**	57	57	12	30	12	28	21–20	22	4
„ Misurata, Tripoli	49	60	12	28	11	29	23–22	22	6
„ Duirat, Tunisia	54	52	12	28	10	28	20–21	22	4
„ „ „	50	47	12	27	12	26	19–20	20	4
♀ „ „	57	47	12	30	9	26	17–16	18	4
„ „ „	55	51	12	30	11	25	17–18	19	4
„ „ „	52	52	12	29	12	26	20	19	4–5
♂ Cabes, „	52	41	12	30	11	28	20–19	20	4
♀ „ „	55	57	12	29	10	29	17–18	20	4
„ „ „	54	43	12	30	9	27	20–19	22	4
„ „ „	50	51	12	29	11	28	18	21	5
♂ Mettamer, „	50	55	12	28	12	26	21	22	4
♀ Bir el Ahmar, Tunisia	56	46	12	30	12	27	23–22	19	4
♂ S. of Gafsa „	57	51	12	27	11	29	22–21	22	5
„ El Kreder, Prov. Oran	62	55	12	32	11	34	23	21	4
♀ Mecheria, „ „	57	49	12	29	12	30	18	18	4
„ „ „ „	57	57	12	29	10	31	19	20	4

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	1.	2.	3.	4.	5.	6.	7.	8.	9.
♀ Mecheria, Prov. Oran . . .	52	48	12	31	11	27	17–19	19	4
♂ Kralfalla „ „ . . .	56	54	12	30	13	35	25	21	4
Var. *latastii.*									
♀ Tripoli	52	55	12	30	12	29	16–17	19	4
♂ El Hammam of Tozeur, Tunisia	56	58	12	29	10	33	22	22	4
„ Feriana, Tunisia	55	56	14	31	12	29	21–22	19	5
♀ Wed Sedeur, Algeria . . .	50	53	12	31	12	28	18–19	20	4
♂ Wed Dermel „	53	54	12	28	14	28	19	19	4
„ „	50	58	12	30	11	30	21–20	20	5–4
„ „	48	50	14	30	12	30	21	22	4
♀ Mzab	60	54	12	30	12	33	18	22	4
♂ Biskra	69	60	12	27	12	33	20–21	21	5
„ „	64	58	14	27	10	30	20–18	20	5–4
„ „	63	58	12	28	11	31	22–21	20	4
„ „	63	55	12	28	11	29	21	19	4
„ „	60	61	12	29	12	32	20–21	20	6
„ „	59	55	14	29	12	31	18	19	4–5
„ „	59	53	12	28	12	29	23–22	22	4
„ „	52	58	12	31	13	35	20–19	19	4
♀ „	65	54	12	28	9	31	21–20	20	4
„ „	62	55	12	32	10	27	19	20	5
„ „	61	51	14	30	11	30	20–18	19	5
„ „	61	63	12	30	11	34	20	21	4
„ „	60	51	12	30	11	27	19–17	20	4
„ „	58	59	12	30	12	30	18	19	4–5
„ „	50	61	12	30	11	28	15	20	5
♂ Biskra-Tuggurt	66	58	12	30	13	35	20–19	21	5
„ „	63	56	12	30	11	36	21	20	5
„ „	62	61	12	31	13	33	18–20	20	5
♀ „	64	57	12	31	11	32	20	20	5
„ „	64	55	14	31	12	30	18–17	20	5
„ „	58	57	12	33	14	32	18–19	20	5
♂ Biskra-Laghouat . . .	56	46	12	28	11	30	22	21	4
♀ „	55	54	12	31	10	28	19	21	4
„ „	54	58	12	31	10	28	21	20	4
„ „	52	53	12	30	10	31	16	22	4
Hgr. Ngoussa (type of *Z. deserti*) .	44	65	12	31	12	29	17	20	4
♂ Bou Saada	63	52	12	30	11	28	18	21	4–5
„ „	53	57	14	29	9	31	20	19	4
♀ „	64	52	14	31	10	30	18	21	4
„ „	64	60	12	32	10	30	19	20	4
„ „	63	62	12	33	9	34	16–18	21	4
„ „	61	50	12	31	10	32	18	19	5
„ „	61	51	12	31	10	32	16	20	5
„ „	60	56	12	32	11	30	17–18	21	5
„ „	56	57	12	29	11	29	17–18	19	5

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	1.	2.	3.	4.	5.	6.	7.	8.	9.
♀ Bou Saada	55	53	12	32	8	32	16–15	17	5
„ „	55	56	12	32	8	35	16	21	5
♂ Bou Guelfaia	59	53	14	27	10	30	20	22	4
♀ Tilremt-Laghouat	55	52	12	31	8	32	19	18	4
♂ Laghouat	60	56	12	28	11	33	19–18	20	5
„ „	57	51	12	31	11	32	19–20	20	4
„ „	55	50	14	30	10	31	22–23	20	4
♀ „	60	52	12	31	11	31	17–16	21	4
„ „	58	50	14	31	11	30	21	20	4
„ Ghardaia	57	52	12	32	9	34	19	21	4
♂ Wargla	59	48	12	29	11	29	24–23	20	4
♀ „	58	54	12	30	10	33	17–18	18	4
„ „	58	53	12	31	10	33	19–18	21	4
♂ Wargla-El Golea	60	63	12	29	11	36	20	20	4
„ „	60	55	12	28	13	31	21	20	4
„ „	56	54	12	27	11	35	23	23	4
♀ „	62	57	12	31	13	39	21	21	4
„ Wed Nça-El Alia	55	50	12	29	12	31	20–19	22	4
„ „	55	52	12	30	11	34	17–18	21	6–5

Var. *spinicauda.*

♂ Arba Tahtani, Prov. Oran (type)	56	46	12	29	9	30	23–22	21	4
„ „ „ „	55	46	12	29	10	29	22	21	4
„ „ „ „	54	52	12	28	11	30	20–19	22	4
„ „ „ „	52	56	12	29	12	31	24–23	22	4
„ „ „ „	52	54	12	27	9	29	18–19	20	4
„ „ „ „	52	56	12	29	12	31	24–23	22	4
„ „ „ „	50	53	12	27	11	27	20	22	4
„ „ „ „	47	53	12	27	9	26	20	21	4
♀ „ „ „	56	51	12	33	10	31	17–18	21	4
„ „ „ „	52	53	12	31	12	28	17	21	4
„ „ „ „	50	44	12	31	11	28	18	21	4

A. pardalis is intermediate between the two extreme species of this genus, *A. vulgaris* and *A. scutellatus.*

Synopsis of the Varieties.

I. Hind limb rarely reaching a little beyond the collar; fourth toe, from the base of the fifth, not or but a trifle longer than the head: keels on sides of tail, at the base, not remarkably strong.

A. Snout obtusely pointed, not longer than postocular part of head.

52 to 68 scales across middle of body, dorsals smooth or very feebly keeled; ventrals in 12 (rarely 14) longitudinal and 27 to 34 transverse series . . . . . *Forma typica.*

53 to 65 scales across middle of body, dorsals smooth or very feebly keeled; ventrals in 14 (rarely 12 or 16) longitudinal and 31 to 36 transverse series . . . . . Var. *bedriagæ*, Lat.

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41 to 60 scales across middle of body, dorsals more or less strongly keeled; ventrals in 12 longitudinal and 27 to 33 transverse series . . . . . Var. *maculatus*, Gray.

B. Snout more pointed, a little longer than postocular part of head.

46 to 65 (usually 50 to 58) scales across middle of body, dorsals usually smooth or feebly keeled; ventrals in 12 (rarely 14) longitudinal and 27 to 33 transverse series.

Var. *latastii*, Blgr.

II. Hind limb reaching the ear in males, the collar in females; fourth toe at least a trifle longer than the head, up to $1\frac{1}{4}$; base of the tail much flattened, with the keels on the sides strongly raised, especially in males, producing a serrated outline.

44 to 56 scales across middle of body, dorsals rather strongly keeled; ventrals in 12 longitudinal and 27 to 33 transverse series . . . . . Var. *spinicauda*, Doum.

Taken in the wide sense, *A. pardalis* shows the following range of variation in the number of scales and plates: Scales across body, 41–68; longitudinal rows of ventrals, 12–16; transverse rows of ventrals, 27–36; plates in collar, 8–15; gular scales, 23–36; femoral pores, 15–25; lamellæ under fourth toe, 17–23.

6. ACANTHODACTYLUS MICROPHOLIS.

Acanthodactylus micropholis, Blanf. Ann. & Mag. N. H. (4) xiv, 1874, p. 33, and Zool. E. Persia, p. 383, pl. xxxi, fig. 2 (1876); Boulenger, Proc. Zool. Soc. 1881, p. 745, pl. lxiii, fig. 3; Lataste, Ann. Mus. Genova (2) ii, 1885, p. 503; Boulenger, Cat. Liz. iii, p. 63 (1887), Faun. Ind., Rept. p. 171 (1890), and Bull. Soc. Zool. France, 1918, p. 147.

Habit rather slender, body moderately depressed. Head $1\frac{1}{2}$ times as long as broad, its length 4 to $4\frac{1}{5}$ times in length to vent, its depth equal to the distance between the centre of the eye and the tympanum; a lanceolate concavity from the frontonasal to the middle of the frontal; snout obtusely pointed, as long as the postocular part of the head, with rather sharp canthus and feebly concave loreal region; nasals feebly swollen. Pileus twice as long as broad. Neck as broad as the head. Hind limb reaching the ear or the eye; foot $1\frac{1}{3}$ to $1\frac{1}{2}$ times as long as the head; fourth toe, from the base of the fifth, $1\frac{1}{4}$ to $1\frac{1}{3}$ times as long as the head. Tail about twice as long as head and body.

Upper head-shields convex. Suture between the nasals short or very short, not more than $\frac{1}{4}$ the length of the frontonasal, which is

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broader than long and a little broader than the internarial space; prefrontals as long as broad or slightly longer than broad, forming a suture; frontal as long as or shorter than its distance from the end of the snout, about twice as long as broad, rounded or obtusely angular in front, narrow behind; parietals as long as broad, outer border straight or concave. Only three large supraoculars, the fourth being replaced by granules; first as long as or a little shorter than second, from which it is usually separated by a series of granules, second a little shorter than third; one series of granules, or one in front and two behind, between the second and third supraoculars and the superciliaries, which are 6 or 7, rarely 8 in number, the first the longest. Anterior loreal shorter than second; subocular sharply keeled below the eye and usually bordering the mouth, between the fourth and fifth upper labials.* A single upper temporal; temporal scales granular and smooth, upper a little smaller than the lower; tympanic shield usually present; a more or less distinct denticulation in front of the tympanum, formed by 4 or 5 rounded or obtusely pointed scales.

5 or 6 pairs of chin-shields, the first three in contact in the middle. 28 to 33 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate, juxtaposed in front, larger and imbricate near the collar; gular fold indistinct. Collar free, curved, composed of 10 or 11 plates.

Scales granular and smooth on the nape, rhombic, flat, subimbricate and keeled on the body, gradually increasing in size towards the posterior part of the back, where they are much smaller than the caudals, small on the sides; 56 to 63 scales across the middle of the body, 18 to 22 in a transverse series between the hind limbs. Ventral plates in regular longitudinal and transverse series, all except the outermost broader than long, but not twice as broad as long, or some only as broad as long, in 10 longitudinal and 29 to 31 transverse series. One or two enlarged median preanal plates or, in females, preanal region covered with subequal irregular plates.

21 to 25 femoral pores on each side,† the two series meeting in the middle. Digits with 3 series of scales; toes with moderately strong lateral denticulation, usually more developed on the outer side of the fourth toe, but longest lobes always less than the diameter of the toe; 24 or 25 unicarinate lamellæ under the fourth toe.

Upper caudal scales large, the basals broader than long, sharply keeled, lower smooth or obtusely keeled on the basal part of the tail; 22 or 24 scales in the fourth or fifth whorl.

* Only two exceptions out of 14 specimens, according to Blanford.

† Up to 27 according to Blanford.

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Grey above, with white longitudinal streaks on the body and round spots on the limbs; the white streaks usually 7 in number, including the lateral, the vertebral bifurcating on the nape; one specimen (from Persia) has only 6 streaks on the anterior part of the body and 4 on the posterior; the interspaces between the light streaks frequently blackish, with a series of small round white spots; lower parts white.

Measurements (in millimetres):

	♂	♀
From end of snout to vent	62	63
,, ,, ,, fore limb	24	23
Length of head	15	15
Width of head	10	10
Depth of head	7·5	8
Fore limb	26	24
Hind limb	45	41
Foot	23	22
Tail	125	—

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Magas, Baluchistan (type)	56	51	10	29	10	33	25	24	4
♀ ,, ,, ,,	60	50	10	31	10	28	25–24	25	4
,, Bampur, ,, ,,	63	48	10	31	11	30	21–22	24	4
♂ Rigan, S.E. Persia ,,	62	52	10	30	10	33	25–24	25	4

Habitat.—Blanford found *A. micropholis* locally throughout Baluchistan, much less abundant in the lower elevations near the coast than *A. cautoris*, but apparently replacing that species completely at elevations above 1000 metres. Three specimens were obtained in S.E. Persia, but the species appears to be absent from the highlands of Persia, where, hitherto, no Acanthodactyls have been observed.

7. ACANTHODACTYLUS SCHREIBERI.

Acanthodactylus savignyi (non Aud.), Schreib. Herp. Eur. p. 387 (1875).

Acanthodactylus savignyi, var. *schreiberi*, Bouleng. Bull. Soc. Zool. France, 1878, p. 188.

Acanthodactylus boskianus, var. *syriacus*, Boettg. Ber. Senck. Ges. 1878–79, p. 69; Lataste, Ann. Mus. Genova (2) ii, 1885, p. 496.

Acanthodactylus savignyi, part., Boettg. Ber. Senck. Ges. 1879–80, p. 178.

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Acanthodactylus syriacus, Bouleng. Proc. Zool. Soc. 1881, p. 745, pl. lxiii, fig. 4, and Cat. Liz. iii, p. 61 (1887); Werner, Jahrb. Nat. Ver. Magdeb. 1896–97, p. 128 (1898).

Acanthodactylus schreiberi, Bouleng. tt.cc. pp. 746, 62; Lataste, t.c. p. 505; Bouleng. Bull. Soc. Zool. France, 1918, p. 147.

Acanthodactylus schreiberi, var. *syriacus*, Bouleng. t.c. p. 153.

Habit rather slender, body moderately depressed. Head $1\frac{2}{5}$ to $1\frac{1}{2}$ times as long as broad, its length $3\frac{1}{2}$ to a little over 4 times in length to vent, its depth equal to the distance between the centre of the eye and the tympanum; a more or less distinct lanceolate concavity from the frontonasal to the middle of the frontal; snout obtusely pointed, as long as the postocular part of the head or a little longer (not more than $1\frac{1}{3}$), with rather sharp canthus and feebly concave loreal region; nasals feebly swollen. Pileus $1\frac{4}{5}$ to 2 times as long as broad. Neck as broad as the head. The hind limb reaches between the collar and the ear, rarely the ear, in males, the collar in females; foot $1\frac{1}{4}$ to $1\frac{2}{5}$ times as long as the head; fourth toe, from the base of the fifth, 1 to $1\frac{1}{4}$ times as long as the head. Tail $1\frac{1}{2}$ to 2 times as long as head and body.

Upper head-shields convex. Suture between the nasals $\frac{1}{6}$ to $\frac{1}{2}$ the length of the frontonasal, which is as long as broad or a little broader than long, and a little broader than the internarial space; prefrontals longer than broad, usually forming a suture*; frontal as long as or shorter than its distance from the end of the snout, $1\frac{3}{4}$ to 2 times as long as broad, rounded or forming an obtuse angle in front, narrow behind; parietals as long as broad or a little longer than broad, outer border straight or concave. Four large supraoculars, in contact with each other, first shorter than second, its outer border entirely or nearly entirely in contact with the first superciliary, second often longer than third, fourth smallest: 6 or 7, rarely 8, superciliaries, first longest; a single series of granules between the supraoculars and the superciliaries. Anterior loreal shorter than the second: 4 upper labials† to below the centre of the eye, the fourth the longest; subocular sharply keeled below the eye and forming an angle wedged in between the fourth and fifth upper labials, sometimes nearly reaching the oral border. A strongly keeled upper temporal, usually followed by a much smaller one; temporal scales granular, convex, upper very small, lower larger; tympanic shield present; auricular denticulation absent or merely indicated.

5 pairs of chin-shields, the three first in contact in the middle.

* A small shield between them in two males and in three young.

† Rarely 5 according to Boettger.

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31 to 36* gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate, juxtaposed in front, larger and imbricate near the collar; no gular fold. Collar free, curved or, more frequently, angular, composed of 7 to 11 plates.

Scales granular and smooth on the nape, larger, flat, rhombic, obtusely or rather strongly keeled on the body, subimbricate towards the tail, a little smaller on the sides; 48 to 59 scales across the middle of the body, 20 to 26 in a transverse series between the hind limbs.

Ventral plates in regular longitudinal and transverse series, all except the outermost broader than long, but never twice as broad as long, in 10 longitudinal and 30 to 33 transverse series. 3 or 4 preanal plates on the median line, usually very feebly enlarged in females, the last 2 to 3 times as broad as long in males.

23 to 29 femoral pores on each side,† the two series meeting in the middle. Digits with 3 series of scales; toes with moderately strong lateral denticulation, the denticles stronger on the outer side of the fourth toe but shorter than the diameter of the toe; 21 to 23 strongly unicarinate lamellæ under the fourth toe.

Upper caudal scales much larger than posterior dorsals, oblique, truncate, and strongly and diagonally keeled, basals as long as broad or a little broader than long, lower smooth or very obtusely keeled in the basal part; 22 to 28 scales in the fourth or fifth whorl.

Young streaked with black and white, the black streaks the broader and spotted with white; 5 or 6 white streaks on the nape, 4 or 5 on the body, 3 on the base of the tail; another white streak on each side, from the tympanum to the groin; limbs with large round white spots. The striation disappears or is reduced to traces in the adult, which are grey above, spotted, speckled or reticulate with blackish, the blackish spots often forming 2 or 4 longitudinal series. A female is remarkable for a black, light-edged vertebral stripe on the body, the sides being spotted with blackish, and a light, black-edged vertebral streak on the nape. Lower parts white.

Measurements (in millimetres):

	♂	♀
From end of snout to vent . .	82	73
,, ,, ,, fore limb . .	32	26
Length of head	21	18
Width of head	14	12
Depth of head	10	8
Fore limb	29	25

* Up to 40 according to Boettger.

† Or 30 according to Boettger.

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	♂	♀
Hind limb	55	43
Foot	27	22
Tail	155	130

Habitat.—Cyprus.

Var. SYRIACUS, Boettger.

After mature consideration I have decided to unite the Syrian form with that from Cyprus, as the only important difference resides in the stronger and sharper keels on the dorsal scales—a difference of degree which is not greater than we find in varieties of other species (*A. vulgaris*, *A. scutellatus*). The keeled temporal scales and rather larger gular scales (27 to 32, rarely 35, in a straight line) are not important characters in the light of the variations in other species. 18 to 22 scales in a transverse series between the hind limbs; 21 to 26 femoral pores on each side. In 10 specimens from Beyrut (out of 14 examined) the frontonasal is longitudinally bisected, and in one, preserved in the Lyons Museum, the subocular narrowly enters the labial border.

The specimens examined by me, as well as those described by Boettger and by Werner, are often reddish above, with 8 light bluish-grey longitudinal streaks bearing small blackish spots. Others are grey above, with small black spots, or white, dark-edged ocelli between more or less distinct light longitudinal streaks, exactly as in the typical *A. schreiberi*.

Measurements (in millimetres):

	♂	♀
From end of snout to vent	78	67
„ „ „ fore limb	27	25
Length of head	19	17
Width of head	13	11
Depth of head	9	8
Fore limb	28	23
Hind limb	47	42
Foot	25	22
Tail	165	122

In its strongly keeled scales this form approaches the typical *A. boskianus*, of which it has been regarded as a variety by Boettger and by Lataste; but it is easily distinguished from it by the smaller scales on the posterior part of the back, and the first supraocular appears to be always entire.

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Habitat.—Beyrut, Jaffa, and Haiffa in Syria.—The specimens in the Lyons Museum were referred by Lortet to *A. scutellatus*.

Particulars of Specimens Examined.

	Forma typica.	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂	Cyprus	93	55	10	31	11	36	29	23	4
„	„	82	54	10	33	9	34	26	23	4
„	„	82	54	10	30	8	33	24–26	23	4
„	„	80	48	10	32	9	32	25–26	21	4
„	„	79	50	10	30	7	33	28–27	22	4
„	„	76	52	10	31	9	31	27–28	21	4
„	„	74	59	10	32	10	35	26–28	23	4
♀	„	73	50	10	33	9	33	27–28	23	4
„	„	68	55	10	32	8	33	25	21	4
„	„	66	59	10	33	9	33	26	23	4
„	„	66	51	10	31	8	32	24–23	22	4
„	„	62	55	10	32	7	34	23–25	23	4
„	„	57	57	10	32	8	33	24	22	4
	Var. *syriacus.*									
♂	Beyrut	78	49	10	32	12	30	23–24	21	4
„	„	70	51	10	31	11	29	24	22	4
„	„ **P.M.**	69	54	10	32	11	30	23	21	4
„	„ **L.M.**	75	53	10	31	11	32	27–25	21	5–4
„	„ „	74	48	10	30	12	28	23	20	4
„	„ „	69	52	10	31	11	31	25–26	21	5–4
„	„ „	56	57	10	30	13	32	23–24	21	4
„	„ „	56	49	10	33	12	31	25–24	21	4
♀	„	75	49	10	33	8	28	26–25	20	4
„	„	67	52	10	31	11	35	23–22	20	4
„	„ **L.M.**	63	57	10	32	10	31	22–21	20	4
♂	Syria	75	51	10	32	10	28	24	19	4
„	„	57	52	10	32	10	27	24–23	20	4

I have besides examined, in the Lyons Museum, a series of 40 specimens of the var. *syriacus*, bearing the erroneous indication: "Cochinchine, don du Dr. Morice." They were associated with examples of *Lacerta lævis* and *Chalcides ocellatus*, and no doubt came from Syria. In 33 of these specimens the frontonasal is divided into two by a longitudinal cleft, in 2 it is divided into three; in 2 of them the subocular borders the mouth.

8. ACANTHODACTYLUS BOSKIANUS.

Lacerta boskiana, Daud. Hist. Rept. iii, p. 188, pl. xxxvi, fig. 2 (1802); Lichtenst. Verz. Doubl. Mus. Berl. p. 103 (1823); Aud. Descr. Egypte, Rept., Suppl. p. 173, pl. i, fig. 9 (1829).

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Lacerta aspera, Aud. op. cit. p. 174, pl. i, fig. 10.

Acanthodactylus boskianus, Wiegm. Herp. Mex. p. 10 (1834) ; Dum. & Bibr. Erp. Gén. v, p. 278 (1839) ; Gray, Cat. Liz. p. 38 (1845) ; Strauch, Erp. Alg. p. 38 (1862) ; Bouleng. Bull. Soc. Zool. France, 1878, p. 182, and Proc. Zool. Soc. 1881, p. 744, pl. lxiii, fig. 2 ; Eimer, Arch. f. Nat. 1881, pl. xv, fig. 26 ; Lataste, Ann. Mus. Genova (2) ii, 1885, p. 496 ; Parenti & Picaglia, Atti Soc. Modena (3) v, 1886, p. 29 ; Bouleng. Cat. Liz. iii, p. 59 (1887), and Tr. Zool. Soc. xiii, 1891, p. 129 ; Anders. Proc. Zool. Soc. 1892, p. 14, Herp. Arab. p. 34 (1896), and Zool. Egypt, Rept. p. 148, pl. xx (1898) ; Doumergue, Erp. Oran. p. 148, pl. x, figs. 1–3 (1901) ; Werner, Zool. Jahrb., Syst. xxvii, 1909, p. 604 ; Bouleng. Bull. Soc. Zool. France, 1918, p. 148.

Scapteira inequalis, Gray, Ann. N. H. i, 1838, p. 280.

Acanthodactylus asperus, Bonap. Icon. Faun. Ital., Amf. (1841).

Acanthodactylus boskianus, var. *asper*, Lataste, l.c. ; Bouleng. Bull. Soc. Zool. France, 1918, p. 153.

Lacerta longicauda, Hempr. & Ehrenb. Symb. Phys., Zool., Amph. pl. ii, fig. 5 (1899).

Acanthodactylus boskianus, var. *euphraticus*, Bouleng. Ann. & Mag. N. H. (9) iii, 1919, p. 550.

The following description is taken from the smaller-scaled form, with the subocular excluded from the oral border, the range of which appears to be restricted to the Mediterranean coast of Egypt, and which agrees with Daudin's *L. boskiana*, as first pointed out by Lataste on examination of the type specimen preserved in the Paris Museum. The larger-scaled form, var. *asper*, which has a wide distribution, grades into it so completely as to cause difficulties in the naming of certain isolated specimens.*

Habit rather slender,† body moderately depressed. Head $1\frac{1}{2}$, or a little less, to $1\frac{2}{3}$ times as long as broad, its length $3\frac{2}{3}$ to $4\frac{1}{5}$ times in length to vent, its depth equal to the distance between the anterior corner or the centre of the eye and the tympanum ; a lanceolate concavity from the frontonasal to the middle of the frontal, bordered by a usually rather strong but obtuse keel ; snout more or less

* Doumergue mentions one from Geryville, in the Province of Oran, which he refers to the typical form, but which is probably only an annectant example of the var. *asper*, with an exceptionally high number of scales (38 or 40 across the middle of the body).

† Except in one male from Alexandria, which is as stout as a typical *A. pardalis*. This aberrant specimen is also remarkable in having a shorter pectination on the outer side of the fourth toe, resembling some specimens of *A. pardalis*.

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obtusely pointed, as long as or a little longer than the postocular part of the head, with rather sharp canthus and feebly concave loreal region; nasals feebly swollen. Pileus 2 to $2\frac{1}{4}$ times as long as broad. Neck as broad as the head. The hind limb reaches the ear or between the collar and the ear in males, the collar or between the collar and the ear in females; foot $1\frac{1}{4}$ to $1\frac{2}{5}$ times as long as the head; fourth toe, from the base of the fifth, 1 to $1\frac{1}{4}$ times as long as the head. Tail $1\frac{2}{3}$ to $2\frac{1}{3}$ times as long as head and body.

Upper head-shields convex, sometimes feebly rugose in the adult. Suture between the nasals $\frac{1}{6}$ to $\frac{1}{4}$ the length of the frontonasal, which is as long as broad or a little broader than long, and a little broader than the internarial space*; prefrontals as long as broad or longer than broad, forming a suture†; frontal as long as or shorter than its distance from the end of the snout, $1\frac{3}{4}$ to 2 times as long as broad, rounded or forming an obtuse angle in front, narrow behind; parietals as long as broad or a little longer than broad, outer border straight or concave; a very small occipital sometimes present, behind the suture between the parietals. Four large supraoculars, the first as long as or a little shorter than the second, and usually divided into 2 or 3, sometimes disintegrated into 4 to 7 parts, or separated from the second by a series of granules, fourth smaller and also occasionally separated from the supraocular in front of it by a series of granules; 6 or 7, rarely 5, superciliaries, the first the longest and in contact in front with the first supraocular; a single series of granules between the supraoculars and the superciliaries. Anterior loreal shorter than second; constantly 4 upper labials to below the centre of the eye, the fourth the longest; subocular sharply keeled below the eye and forming an angle wedged in between the fourth and fifth upper labials. Two strongly keeled upper temporals, the first long, the second short; temporal scales granular, convex, upper minute, lower large, or lower transversely elongate and more or less strongly keeled; tympanic shield often present; auricular denticulation merely indicated or moderately strong and formed of 4 or 5 rounded or obtusely pointed scales.

5 pairs of chin-shields, the three first in contact in the middle. 25 to 35 (usually 25 to 31) gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate, juxtaposed in front, larger and imbricate near the collar; gular fold

* Longitudinally divided into two in a female from Alexandria and in a young from Ramleh.

† A small shield between the prefrontals in a male and in a female from Alexandria and in a male and in a young from Ramleh.

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feeble but distinct. Collar free, curved, composed of 8 to 12 plates.

Scales granular and keeled on the nape, large, flat, rhombic, sharply keeled, as long as broad, rounded or obtusely pointed behind on the back, the posterior more or less imbricate, increasing in size towards the tail, but considerably smaller than the basal caudals: scales on the sides much smaller, more or less distinctly or even strongly keeled, and either merging into the dorsals or abruptly differentiated; 34 to 52 (usually 38 to 43) scales across the middle of the body,* of which 16 to 20 are enlarged dorsals; 12 to 14 (rarely 16) large keeled scales in a transverse series between the hind limbs. Ventral plates in regular longitudinal and transverse series, all except the outermost broader than long, the largest rarely twice as broad as long, in 10 longitudinal and 27 to 32 (usually 29 or 30) transverse series. Males with 2 to 4 enlarged preanal plates on the median line, the last usually 2 to 3 times as broad as long; in females these plates are smaller and the preanal region is often covered with small, subequal, irregular plates.

21 to 31 (usually 22 to 28) femoral pores on each side, the two series meeting or narrowly separated in the middle. Digits with 3 series of scales; toes strongly denticulate, especially on the outer side of the fourth toe, where the lobes of the fringe are as long as or a little shorter than the diameter of the toe; 20 to 24 uni- or tricarinate lamellæ under the fourth toe.

Upper caudal scales large, the basal broader than long, sharply keeled, rounded, truncate, or obtusely pointed behind, sometimes shortly mucronate, lower smooth in the basal part of the tail; 18 to 22 scales in the fourth or fifth whorl.

Young with 5 (rarely 4) white streaks on the upper surface of the body, sometimes 6 or 7 on the nape,† and one on each side, separated by dark grey or blackish broader streaks, which may be spotted with white; 4 and then 3 white streaks on the base of the tail; limbs with large round white spots; tail red towards the end. This striation may persist in the adult, well marked or faint, or the dark streaks may be replaced by series of black and white spots, or the upper parts may be yellowish with four red longitudinal bands; exceptionally with a blacksh network enclosing round whitish spots. Lower parts white.

* 52 in the type specimen, as counted by Lataste. Otherwise the number of scales does not exceed 47 in the specimens examined by me.

† The type specimen figured by Daudin shows two pairs of dorsal streaks and a vertebral ending half-way down the back.

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Measurements (in millimetres):

	1.	2.
From end of snout to vent	79	64
„ „ „ fore limb	29	25
Length of head	19	16
Width of head	12	10
Depth of head	10	8
Fore limb	26	21
Hind limb	50	39
Foot	26	19
Tail	175	108

1. ♂, Abukir. 2. ♀, Alexandria.

Var. ASPER, Audouin.

Distinguished by larger dorsal scales. Head likewise varying in shape, the snout exceptionally rather pointed and 1½ times as long as the postocular part of the head.* The hind limb reaches between the collar and the ear or between the ear and the eye, very rarely the eye, in males, the shoulder, the collar or between the collar and the ear in females.

The first and fourth supraoculars usually entire†; rostral exceptionally in contact with the frontonasal‡; a small shield sometimes present between the prefrontals§; exceptionally 5 or 6 upper labials to below the centre of the eye.

22 to 32 (usually 23 to 28) gular scales in a straight line. 7 to 12 collar-plates.

Dorsal scales abruptly differentiated from the laterals, in 12 to 18 longitudinal series in the middle of the body, and 8 to 14 (usually 10 to 12) between the hind limbs, the posterior often nearly as large or but little smaller than the basal caudals; 23 to 38 (usually 25 to 35) scales across the middle of the body. Ventral plates exceptionally in 8 or 12 longitudinal series. 15 to 27 (usually 17 to 24) femoral pores on each side. 17 to 24 lamellæ under the fourth toe. 18 to 22 scales in the fourth or fifth caudal whorl.

Young with 6, 5, or 4 white streaks on the nape, 5 or 4 on the

* Two males, from Tunisia and Ghardaia, may be regarded as extremes; their measurements are here given. There are also considerable differences between specimens from the Hadramut.

† Divided into 2 or 3 shields in 17 specimens only, from Aden, Lahej, Abian Country, Haithalhim, Hadramut, Giza, Suakin, Laghouat, and Bou Guelfaia.

‡ Male from Aden and male from Haithalhim.

§ Single specimens from Sinai, Cairo, Giza, Gebel Maryut, Luxor, Suakin, and Annesley Bay.

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body, 4 and 3, or 3 only, on the base of the tail; these streaks sometimes quite as broad as the dark streaks between them. Adult very variable, as in the typical form, sometimes handsomely streaked with yellowish and brick-red. Lower surface of tail sometimes bright red or pink in females.

Measurements (in millimetres):

	1.	2.	3.	4.	5.	6.
From end of snout to vent	82	76	61	61	67	64
„ „ „ fore limb	32	31	23	23	23	23
Length of head	21	19	16	16	16	16
Width of head	14	13	10	11	11	10
Depth of head	11	10	8	8	8	8
Fore limb	31	27	23	23	24	24
Hind limb	57	51	40	39	38	42
Foot	27	26	20	20	20	23
Tail	195	180	128	127	125	—

1. ♂, Hadramut. 2. ♂, N.E. of El Golea. 3. ♂, S. of Ghardaia. 4. ♂, Tunisia. 5. ♀, Neby Musa. 6. ♀, Bou Saada.

Var. EUPHRATICUS, Boulenger.

I am indebted to my son, Dr. C. L. Boulenger, for 8 specimens obtained by himself and Lieut. Harrison at Ramadieh on the Euphrates Front in 1917, which are highly interesting, 7 of them differing from all others of the species in the subocular bordering the mouth; otherwise they agree with the typical form in the number of scales on the body (38 to 43 across middle, 14 or 16 between the hind limbs) and of femoral pores (23 to 27*). There are 22 to 27 caudal scales in the fourth or fifth whorl. The first supraocular is broken up into 2 or 3 parts, and in 4 of the specimens there is an azygos shield between the prefrontals.

Young with 4 white streaks on the upper surface of the body, 6 on the nape, and one on each side, separated by broader black streaks, each of which may bear a series of round white spots.

Measurements (in millimetres):	♂	♀
From end of snout to vent	81	80
„ „ „ fore limb	30	29
Length of head	19	18
Width of head	13	12
Depth of head	11	9
Fore limb	30	27

* In one of the male specimens there are 2-3 additional pores forming a second series behind the other at the distal end of the thigh.

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	♂	♀
Hind limb	54	46
Foot	26	24
Tail	165	—

The three ill-defined forms which I think deserve recognition under the names of var. *euphraticus*, forma *typica* and var. *asper*, constitute a highly suggestive gradational series; the condition of the subocular shield pointing to the first being the nearest to the hypothetical primitive *Acanthodactylus*. These forms may be thus contrasted:

Subocular usually bordering the mouth; first supraocular divided; 38 to 43 scales across middle of body, 14 to 16 between hind limbs; 23 to 27 femoral pores on each side . . . . . Var. *euphraticus*, Blgr.

Subocular not bordering the mouth; first supraocular usually divided; 34 to 52 (usually 38 to 43) scales across middle of body, 12 to 16 between hind limbs; 21 to 31 (usually 22 to 28) femoral pores . . . *Forma typica.*

Subocular not bordering the mouth; first supraocular usually undivided; 23 to 38 (usually 25 to 35) scales across middle of body, 8 to 14 between hind limbs; 15 to 27 (usually 17 to 24) femoral pores . . . Var. *asper*, Aud.

Habitat.—Palestine, Mesopotamia, Arabia, Coasts of the Red Sea, Egypt, Nubia and Egyptian Sudan, Tripoli, Tunisia, Algeria, south of the Plateaux and far into the Sahara, to the north-west of Lake Chad.* The reported occurrence of this lizard in Persia, although not improbable in view of its recent discovery in Mesopotamia, awaits confirmation, as based on one of the Aucher-Eloy specimens in the Paris Museum.†

Particulars of Specimens Examined.

Forma typica.	1.	2.	3.	4.	5.	6.	7.	8.	9.
Yg. (type), **P.M.**	38	52	10	32	10	27	22–21	21	4
♀ Maryut	64	38	10	29	9	27	22	19	4
♂ Alexandria	77	41	10	29	10	25	24–23	21	4
,, ,, ...	74	40	10	29	10	28	25	20	4
,, ,, ...	73	38	10	29	11	31	24–23	21	4
,, ,, ...	60	42	10	30	9	30	24–25	20	4
♀ ,, ...	69	41	10	30	10	28	24–25	22	4
,, ,, ...	64	39	10	31	8	25	22–23	20	4
,, ,, ...	57	34	10	30	9	25	22–23	21	4
,, ,, ...	56	44	10	30	11	27	24–22	21	4
♂ Ramleh	73	43	10	27	8	28	25–26	22	4
,, ,, ...	72	43	10	30	12	31	28	21	4

* Pellegrin, Bull. Mus. Paris, 1909, p. 413.—The specimen, which I have examined in the Paris Museum, is a young one, and belongs to the var. *asper*.

† See remarks above, under *Lacerta viridis*, var. *vaillanti* (vol. I, p. 77).

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	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Ramleh	71	47	10	29	10	29	25–24	21	4
„ „	65	42	10	29	9	32	30–28	23	4
„ „	56	41	10	30	8	28	27–28	20	4
♀ „	60	37	10	30	8	28	23	21	4
„ „	60	43	10	29	9	29	26–27	20	4
„ „	58	43	10	29	12	31	25–24	22	4
„ „	57	38	10	32	9	28	22 23	21	4
♂ Abukir	79	41	10	30	10	35	28–29	22	4
„ „	73	38	10	28	9	29	24–27	21	4
„ „	66	42	10	28	10	31	31–30	24	4
„ Port Said	66	42	10	30	10	29	25–24	20	4
♀ „	62	40	10	31	9	25	21	20	4
Var. *asper*.									
♂ Basra, Mesopotamia	56	31	10	27	9	27	22–20	22	5–4
♀ „ „	55	33	10	27	8	27	19–18	22	4
„ Neby Musa, Dead Sea	67	34	10	27	8	27	23–22	20	4
♂ Moses Wells, near Suez	64	36	10	28	8	28	21	21	4
„ Tor, Sinai	76	36	10	26	10	29	26–25	22	4
„ Wed Hebron, Sinai	65	31	12	27	9	31	22–23	22	4
„ „ „	64	33	10	25	9	26	24–23	20	4
„ „ „	59	33	10	25	9	26	25	21	4
♀ „ „	61	32	8	26	10	26	21 20	20	4
„ „ „	58	30	10	27	10	22	21–20	20	4
♂ Sinaitic Peninsula	67	29	10	25	8	24	20	20	4
♀ Midian	61	25	12	27	9	24	21	20	4
♂ Aden	64	29	10	26	8	26	24–22	21	4
„ „	57	27	10	26	10	26	20	21	4
„ „	57	31	10	28	7	28	21	20	4
♀ „	55	28	10	26	8	26	21–22	22	4
„ „	50	29	10	27	8	27	21	21	4
♂ Haithalhim, near Aden	74	30	10	25	10	28	20–21	20	4
„ „ „	62	25	10	26	9	23	22–20	20	4
♀ „ „	71	23	10	30	10	24	17	21	4
„ „ „	65	28	10	27	10	23	20–22	20	4
„ „ „	57	27	10	26	10	23	21–22	20	4
♂ Lahej, near Aden	74	32	10	27	9	28	19–20	21	4
♀ Mt. Manif, near Aden	62	31	12	27	8	27	21	19	4
♂ Abian Country, S.W. Arabia	73	33	10	26	9	29	23	23	5–4
„ Hadramut „	82	25	10	25	10	26	19–20	20	4
„ „	82	27	10	26	10	28	17–19	22	4
„ „	81	30	10	27	7	27	19–20	20	4
„ „	76	23	10	25	8	26	15–16	20	4
„ „	73	25	10	27	9	23	17–16	20	5–4
♀ „	65	24	10	27	10	27	18	24	4
♂ Suez	67	34	10	25	12	29	20–22	22	4
„ „	61	30	10	26	9	24	22–21	20	4
„ „	60	33	12	27	7	25	23–22	22	4

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	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Suez	59	28	10	28	8	28	17–18	21	4
„ „	55	32	12	25	12	27	22	23	4
♀ Gebel Maryut	61	32	10	27	9	22	19	20	4
♂ Cairo	69	30	12	26	8	23	21–20	19	4
♀ „	65	31	10	28	9	28	21–22	23	4
„ „	62	32	10	26	9	26	19	20	4
♂ Giza, near Cairo	71	34	10	28	11	27	21	19	4
„ „ „	58	31	10	26	10	28	21–20	20	4
„ Belat, Libyan Desert	76	32	10	26	10	29	24–25	23	4
„ „ „	71	28	10	26	11	27	22	21	4
„ Tel el Amarna	65	31	10	25	9	27	22–23	21	4
„ „	65	34	10	25	7	28	22	20	4
„ „	63	33	10	28	9	26	21 22	22	4
„ „	56	33	10	24	11	23	21 22	19	4
„ „	56	32	10	28	8	25	20–18	22	4–5
♀ „	60	32	10	30	7	26	20–18	22	4
♂ Luxor	57	30	10	27	9	32	23	20	4
„ „	56	30	10	26	7	25	20–19	20	4
♀ „	64	33	10	26	8	25	20–18	19	4
„ „	64	38	10	29	10	28	21–22	22	4
♂ Assuan	64	36	10	25	10	22	19	19	4
„ Egypt (type of *S. inæqualis*)	75	35	8	26	9	28	22 23	20	4
„ Khartum	52	30	10	26	10	25	19–18	21	4
♀ „	52	31	10	27	7	22	17–16	19	4–5
♂ Suakin	77	34	10	26	9	26	21–19	20	4
„ „	75	30	10	28	9	26	21	18	4
„ „	70	32	10	26	8	23	22	20	4
„ „	69	28	10	27	9	25	18–20	19	4
„ „	69	30	10	27	9	28	22 21	20	4
„ „	66	33	10	27	11	27	22	20	4
♀ „	70	32	10	30	11	31	21	19	4–5
„ „	65	33	10	27	8	29	21	21	5–6
„ „	63	33	10	29	9	26	22–21	20	4
„ „	59	32	10	28	9	26	20	20	4
♀ Erkovit, near Suakin	54	35	10	29	10	28	21–20	20	4
♂ Duem, Egypt. Sudan	71	28	10	25	12	23	21–20	21	4
„ Annesley Bay, Eritrea	59	28	10	28	10	25	21 22	19	4
„ Tunisia	61	35	10	29	9	30	22 21	20	4
„ Duirat, Tunisia	73	30	10	27	9	26	23	20	4
♀ „ „	66	34	10	28	9	25	23	20	5
„ „ „	66	32	10	28	8	30	19 18	20	4
„ „ „	63	34	10	27	10	31	23–20	23	4
♂ Zarzis, Tunisia	80	31	10	27	10	25	22	17	4
„ Bordj-Bou-Arrerij, Algeria	53	35	10	28	11	28	22 21	19	4
„ Bou Saada „	63	38	10	27	9	23	20–21	20	4
♀ „ „	64	34	10	27	8	25	23	19	4
„ „ „	62	38	10	28	9	28	23	21	4
„ „ „	60	34	10	29	10	28	20–21	18	4

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	1.	2.	3.	4.	5.	6.	7.	8.	9.
♀ Bou Saada, Algeria	60	35	10	28	8	29	24	20	4
„ Biskra-Laghouat	56	33	10	28	10	23	18–17	19	4
♂ Laghouat	72	36	10	26	8	25	20	20	4
♀ „	64	31	10	27	8	23	21 20	17	4
„ Bou Guelfaia-Tibremt	57	34	12	29	9	27	24–22	20	4
♂ S. of Ghardaia	61	38	10	29	9	28	22–20	18	4
„ Tuggurt	63	34	10	26	8	27	24–22	20	4
♀ „	65	34	10	30	8	29	25 23	20	4
„ Wed Nça-El Alia	57	29	10	30	9	26	23–22	22	4
♂ N.E. of El Golea	76	32	10	27	11	25	22–23	20	4
„ „ „	69	26	10	28	10	29	23–24	23	4
„ „ „	62	34	10	27	10	27	25 26	20	4
„ El Golea-Wed Saret	55	35	10	28	11	30	22	21	4
„ Aïn Guettara	73	30	10	26	11	25	24 23	21	4
„ „	71	30	10	27	10	28	24 23	20	4
♀ El Kreder, Prov. Oran	60	33	10	28	9	25	20–21	19	4
♂ Aïn Sefra, „	81	33	10	28	10	26	25–27	22	4
„ „ „	80	35	10	29	8	25	23	21	4
„ „ „	73	31	10	27	10	27	19–20	20	4
♀ „ „	58	37	10	32	8	26	22	23	4
Var. *euphraticus*.									
♂ Ramadieh (type)	81	41	10	29	9	29	26	22	4
„ „ „	79	38	10	29	9	28	25 24	20	4
„ „ „	77	43	10	29	8	28	26–27	22	4 5
„ „ „	75	38	10	29	8	29	23–24	20	4
♀ „ „	80	39	10	30	9	30	25 26	20	4
„ „ „	66	45	10	29	9	29	23	21	4
Yg. „ „	43	39	10	30	8	31	25 27	23	4
„ „ „	38	40	10	28	8	29	26	21	4

9. ACANTHODACTYLUS CANTORIS.

Acanthodactylus cantoris, Günth. Rept. Brit. Ind. p. 73 (1864); Stoliczka, Journ. As. Soc. Beng. xli, 1872, p. 91; Blanf. Zool. E. Pers. p. 381, pl. xxvi, fig. 3 (1876); Bouleng. Proc. Zool. Soc. 1881, p. 745, pl. lxiv, fig. 3; Murray, Zool. Sind, p. 348 (1884); Lataste, Ann. Mus. Genova (2) ii, 1885, p. 507; Bouleng. Cat. Liz. iii, p. 60 (1887), and Faun. Ind., Rept. p. 170 (1890); Anders. Proc. Zool. Soc. 1895, p. 646, Herp. Arab. p. 34 (1896), and Proc. Zool. Soc. 1901, ii, p. 143; Parshad, Rec. Ind. Mus. x, 1914, p. 271; Bouleng. Bull. Soc. Zool. France, 1918, p. 148.

? *Acanthodactylus micropholis* (non Blanf.), Murray, l.c.

Acanthodactylus cantoris, vars. *blanfordii*, *arabicus*, Bouleng. Bull. Soc. Zool. France, 1918, p. 154.

Typical form.

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Habit rather slender, body more or less depressed. Head $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as broad, its length $3\frac{2}{3}$ to 4 times in length to vent, its depth equal to the distance between the centre of the eye and the tympanum; a deep lanceolate concavity from the frontonasal to the middle of the frontal; snout pointed, often acutely, $1\frac{1}{5}$ to $1\frac{1}{2}$ times as long as the postocular part of the head, with sharp canthus and concave loreal region; nasals often rather strongly swollen. Pileus $1\frac{3}{4}$ to $2\frac{1}{4}$ times as long as broad. Neck as broad as or a little narrower than the head. The hind limb reaches the ear or between the collar and the ear, rarely between the ear and the eye, in males, the collar or between the collar and the ear, rarely the ear, in females; foot $1\frac{1}{4}$ to $1\frac{1}{2}$ times as long as the head; fourth toe, from the base of the fifth, 1 to $1\frac{1}{4}$ times as long as the head. Tail $1\frac{1}{2}$ to $2\frac{1}{4}$ times as long as head and body.

Upper head-shields flat or convex, smooth, or feebly rugose in old specimens. Suture between the nasals short or very short; frontonasal as long as broad or a little longer than broad, rarely a little broader than long,* a little broader than the internarial space; prefrontals longer than broad, the suture between them long or short, according to the length of the snout; frontal shorter than its distance from the end of the snout, $1\frac{3}{4}$ to $2\frac{1}{4}$ times as long as broad, rounded or, more often, obtusely angular in front, narrow behind; parietals as long as broad or broader than long, outer border straight or concave; a small occipital often present behind the suture between the parietals.† 4 supraoculars, the first as long as or shorter than the second, nearly wholly in contact with the first superciliary,‡ the fourth smaller, often broken up or separated from the third by a series of granules; one or two series of granules between the second and third supraoculars and the superciliaries, which are 6 or 7, rarely 8, in number, first longest. Anterior loreal much shorter than second; 5, rarely 4 or 6, upper labials to below the centre of the eye; subocular sharply keeled below the eye, lower border rounded and resting on the fourth, fifth and sixth upper labials, or angular and wedged in between the fifth and sixth (rarely sixth and seventh or fourth and

* Occasionally, but very rarely, longitudinally divided into two, as observed by Stoliczka; the same author also notes the presence in some individuals of one or two small shields between the prefrontals, and I find one such small shield in a specimen from Sind and in another from Hissar.

† In a young specimen from Hissar there is a well developed occipital, separated from the interparietal by a small shield.

‡ The second supraocular touches the prefrontal on both sides in a specimen from Sind, and on one side in another from between Nushki and the Helmand.

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fifth).* 2 large supratemporals, subequal or first the larger, rarely 3; upper temporal scales minute, lower large, often transversely elongate and more or less strongly keeled; a narrow tympanic shield usually present; usually 3 to 5 pointed scales form a denticulation in front of the tympanum, sometimes with a few compressed and erect scales in front of them.

5 pairs of chin-shields, the first three in contact in the middle. 26 to 37 (usually 28 to 31) gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate, juxtaposed in front, enlarged and imbricate towards the collar; gular fold indistinct. Collar free, curved or angular, strongly serrated, composed of 7 to 14 plates.

Scales rhombic and strongly keeled throughout, very small on the nape, gradually enlarged and imbricate on the back, where they pass more or less gradually into the caudals; the scales on the back much larger than those on the sides, rounded behind or pointed or even shortly mucronate, with oblique keels directed towards the median line, in 14 to 18 longitudinal series in the middle of the body, in 10 to 15 series between the hind limbs; 26 to 38 (usually 28 to 34) scales across the middle of the body. Ventral plates in 12 (rarely 14) longitudinal and 28 to 32 nearly straight transverse series, on two or several longitudinal series broader than long, otherwise not broader than long, the outer usually pointed and feebly keeled. Usually 2 or 3 unpaired preanal plates, the one in front of the vent $1\frac{1}{2}$ to 2 times as broad as long; or preanal region covered with small irregular plates.

16 to 24 femoral pores on each side, the two series usually meeting in the middle. Fingers with 4 series of scales, the series on each side forming a very feeble denticulation; toes with only 3 series of scales, the serration on the outer side much stronger than on the inner, very strong on the fourth toe, where the lobes of the fringe at least equal, and often exceed the diameter of the toe; 19 to 24 unicarinate lamellæ under the fourth toe.

Upper caudal scales very oblique and strongly and diagonally keeled, more or less distinctly mucronate, those at the base broader than long, lower smooth or feebly keeled in the basal part of the tail; 18 to 22 scales in the fourth or fifth whorl.

Young elegantly streaked with black and white, the streaks of nearly equal width; usually 5 white streaks on the nape, 4 on the body, 3 on the base of the tail; but the vertebral streak sometimes

* The subocular "occasionally touches the labial margin" according to Stoliczka.

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extends along the body to between the hind limbs; a white lateral streak from the eye, through the tympanum, to the base of the thigh; older specimens sometimes have series of white spots along the black streaks; head variegated with black and white; upper lip usually with black vertical bars; the black and white streaks on the temple sometimes replaced by vertical bars; limbs with large round white spots; end of tail sometimes pink, sometimes blue. The striation may persist more or less distinctly in the adult, but adult males are usually grey or reddish brown, uniform or with round light, dark-edged spots corresponding with the arrangement of the light streaks, or with a dark network; the dark bars on the upper lip often persist. Lower parts white.

Measurements (in millimetres), of specimens from Kurrachu:

	♂	♀
From end of snout to vent	72	64
,, ,, ,, fore limb	28	22
Length of head	18	16
Width of head	12	10
Depth of head	9	8
Fore limb	27	22
Hind limb	48	38
Foot	24	20
Tail	162	115

Habitat. Agra, Punjab, Rajputana, Sind, Cutch, Baluchistan, Southern Afghanistan.

Var. BLANFORDII, Boulenger.

The specimens from Baluchistan and Southern Persia* first described by Blanford differ from the typical form in having smaller scales (38 to 44 round the middle of the body), the dorsals (20 to 22 across the middle of the body) less abruptly defined from the laterals, and the posterior much smaller than the basal caudals (12 to 16 between the hind limbs), and the gular scales are also usually smaller (33 to 37 in a straight line). The ventrals are in 12 (rarely 14)† longitudinal series, as in the type, but the outer are neither pointed nor keeled.

6 dorsal and 1 lateral light longitudinal streaks, with or without round white spots between them; some specimens nearly uniform.

* *A. cantoris* occurs also in Central Persia, as it is recorded by Werner, Verh. Zool.-bot. Ges. Wien, xlv, 1895, p. 16, from between Teheran and Kom, altitude 1200 to 1500 metres.

† Exceptionally 10, according to Blanford.

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Measurements (in millimetres):

	1.	2.
From end of snout to vent	66	53
,, ,, ,, fore limb	27	22
Length of head	17	14
Width of head	11	9
Depth of head	8	7
Fore limb	22	21
Hind limb	44	37
Foot	24	19
Tail	—	95

1. ♂, Bam, Persia. 2. ♀, Maud, Baluchistan.

Var. ARABICUS, Boulenger.

The specimens from South Arabia, all of smaller size, females 45 millim. long from snout to vent being gravid, agree with the typical form in the large size of the dorsal scales (27 to 35 across the middle of the body), but differ in having the ventral plates in 14 (rarely 16) longitudinal series, the outermost being usually feebly keeled. The gular scales are large (24 to 30 in a straight line).

Young usually with 6 white streaks on the nape and anterior part of the back, 4 on the posterior part of the back, 3 on the base of the tail, and one on each side; sometimes 6 or 7 white streaks on the nape, 5 on the anterior part of the back. One specimen has 6 white streaks on the nape, the median pair uniting, at the level of the collar, into a vertebral streak edged with black, the rest of the back being grey with 6 rows of small white spots. Tail blue. Full-grown specimens uniform olive, greyish, or brownish above, sometimes sparsely covered with small black spots, which may have a longitudinal serial arrangement.

Measurements (in millimetres):

	1.	2.
From end of snout to vent	63	49
,, ,, ,, fore limb	25	19
Length of head	17	13
Width of head	11	8
Depth of head	9	6
Fore limb	23	18
Hind limb	45	33
Foot	23	18
Tail	153	82

1. ♂, Lahej. 2. ♀, Hadramut.

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Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
Forma typica.									
♂ Ramnagar, Agra (type)	65	28	12	30	10	27	20	23	5
„ „ „ „	64	30	12	28	9	29	20–21	23	5
♀ „ „ „	57	33	12	28	11	27	21	22	6
♂ Kirnru, Punjab	77	32	12	28	14	34	20–21	23	5
„ „ „	77	30	12	28	12	26	21–20	22	5
„ „ „	58	31	12	29	13	29	20	24	5
♀ Nasirabad, Rajputana	66	36	14	28	13	29	21–22	19	5
♂ Karachi	72	37	12	30	11	31	22	22	5
„ „	72	32	12	29	11	31	21–20	22	4
„ „	69	29	12	30	11	30	21–22	20	5
♀ „	68	28	12	31	11	29	20	21	5
„ „	64	34	12	29	13	27	19–18	21	5
„ „	61	31	12	30	13	37	20–21	22	5
„ „	57	29	12	32	11	28	18	22	5
♂ Thar district, Sind	77	31	12	28	12	29	21	24	5
„ „ „	65	30	12	28	11	28	20	20	5
„ Sind	72	34	14	30	11	32	20–23	22	5
„ „	70	26	12	28	10	28	23–24	20	5
„ „	64	28	12	28	10	30	19–20	21	5
„ „	60	35	12	31	14	30	20–19	21	5
„ „	55	30	12	28	12	30	19	20	5
„ „	55	31	12	29	10	28	21–20	22	5
♀ „	49	34	12	30	12	29	22–21	20	6
♂ Cutch, **B.S.**	74	32	12	28	12	27	20–19	20	5
♀ Omara, Mekran Coast	50	32	14	29	7	31	16	21	5
♂ Nushki-Helmand	75	38	12	28	10	31	21	22	5
„ „	71	35	12	29	8	28	20	23	5
♀ „	64	34	14	30	12	32	18–19	20	6–5
„ Helmand	51	37	12	30	10	29	18–19	19	5–6
Var. *blanfordii.*									
♂ Dasht, Baluchistan	56	41	12	31	9	36	24–22	20	5
♀ „ „	51	40	12	31	10	37	19–18	20	5
„ Mand „	53	44	12	30	12	37	21–20	20	5
♂ Bam, S. Persia	66	42	12	32	9	34	19–18	22	5
„ Jask „	64	38	12	28	12	35	20–21	23	5
♀ „ „	53	40	14	29	11	33	17	22	5
Var. *arabicus.*									
♂ Aden	53	29	14	29	9	31	19–22	21	5
♀ „	50	28	14	31	10	28	21–22	22	5
♂ Lahej, near Aden	63	27	14	27	11	25	21	20	6–5
„ „ „	59	28	14	27	10	24	20–22	21	5–4
„ N. of Lahej	52	27	14	28	9	27	20	21	5
„ Abian hills, nr. Lahej	48	35	14	27	10	28	19–22	21	5
„ Hadramut	60	32	14	28	11	28	21–23	22	5
„ „	55	31	14	30	11	25	21	23	5

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	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Hadramut	52	30	14	29	11	25	22	22	6–5
♀ ,, ...	49	32	14	28	11	28	20–19	22	5
,, ,, ...	45	28	14	30	7	25	21	22	5
,, ,, ...	45	32	14	30	11	26	21–19	22	5
Hgr. ,, ...	40	32	16	30	9	26	19–20	21	5

The three forms may be distinguished by the following numerical characters:

26 to 38 (usually 28 to 34) scales across middle of body; 12 (rarely 14) longitudinal series of ventral plates; 25 to 37 (usually 28 to 31) gular scales in a straight line . . . . . *Forma typica.*

38 to 44 scales across middle of body; 12 (rarely 10 or 14) longitudinal series of ventral plates; 33 to 37 gular scales in a straight line.

Var. *blanfordii*, Blgr.

27 to 35 scales across middle of body; 14 (rarely 16) longitudinal series of ventral plates; 24 to 30 gular scales in a straight line . Var. *arabica*, Blgr.

10. ACANTHODACTYLUS SCUTELLATUS.

Lacerta grammica, part., Lichtenst. Verz. Doubl. Mus. Berl. p. 100 (1823).

Lacerta scutellata, Aud. Descr. Egypte, Rept., Suppl. p. 172, pl. i, fig. 7 (1829); M.-Edw. Ann. Sc. Nat. xvi, 1829, pp. 74, 85, pl. vi, fig. 3; Hempr. & Ehrenb. Symb. Phys., Zool., Amph. pl. ii, fig. 4 (1899).

Lacerta olivieri, part., Aud. *op. cit.* p. 174, pl. i, fig. 11.

Lacerta dumerilii, M.-Edw. t.c. pp. 75, 85, pl. vii, fig. 9.

Scapteira inornata, Gray, Ann. N. H. i, 1838, p. 281.

Meroles dumerilii, Gray, t.c. p. 282.

Acanthodactylus scutellatus, Dum. & Bibr. Erp. Gén. v, p. 272 (1839); Gray, Cat. Liz. p. 64 (1845); Strauch, Erp. Alg. p. 36 (1862); Steind. Sitzb. Ak. Wien, lxii, i, 1870, p. 331; Bouleng. Bull. Soc. Zool. France, 1878, p. 185, and Proc. Zool. Soc. 1881, p. 744, pl. lxiii, fig. 2; Boettg. Abh. Senck. Ges. xii, 1881, p. 401; Lataste, Ann. Mus. Genova (2) ii, 1885, p. 491; Bouleng. Cat. Liz. iii, p. 64 (1887), and Tr. Zool. Soc. xiii, 1891, p. 130; Anders. Proc. Zool. Soc. 1892, p. 14; Werner, Verh. Zool.-bot. Ges. Wien, xliv, 1894, p. 82; Koenig, Reise Alg. p. 412 (1896); Anders. Zool. Egypt, Rept. p. 161, pl. xxii (1898); Doumergue, Erp. Oran. p. 152, pl. x, figs. 4–7 (1901); Werner, Zool. Jahrb., Syst. xxvii, 1909, p. 606; Bouleng. Ann. Mus. Genova (3) vi, 1914, p. 79, and Bull. Soc. Zool. France, 1918, p. 148.

Acanthodactylus inornatus, Gray, Cat. Liz. p. 38.

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Acanthodactylus savignyi, var. *schreiberi* (non Bouleng.), Vaill. Miss. Révoil Pays Çomal., Rept. p. 20 (1882).

Acanthodactylus scutellatus, vars. *exiguus*, *dumerili*, Lataste, l.c.

Acanthodactylus scutellatus aureus, Günth. Nov. Zool. x, 1903, p. 298, fig.

Acanthodactylus scutellatus, vars. *longipes*, *audouini*, *aureus*, *inornatus*, *dumerili*, Bouleng. Bull. Soc. Zool. France, 1918, p. 154.

Acanthodactylus senegalensis, Chaban. Bull. Mus. Paris, 1918, p. 162.

The name *scutellatus* applies to the large,* reticulate or dappled form with very small scales which was first figured from Egypt, and to which I refer specimens from the Sinaitic Peninsula, Palestine, Mesopotamia, and the Algerian Sahara. The following description is drawn up from such specimens.

Body short and depressed, limbs rather slender. Head $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as broad, its length $3\frac{1}{2}$ to 4 times in length to vent, its depth equal to the distance between the anterior corner or the centre of the eye and the anterior border of the tympanum; a more or less distinct lanceolate concavity from the frontonasal to the middle or anterior third of the frontal, bounded by very obtuse keels; snout acutely pointed, about once and a half as long as the postocular part of the head, with sharp canthus and concave loreal region; nasals feebly swollen. Pileus $1\frac{3}{4}$ to 2 times as long as broad. Neck as broad as the head. The hind limb reaches between the collar and the ear, the ear, or between the ear and the eye or, very rarely, the eye in males, the collar, between the collar and the ear, or, rarely, the ear in females; foot $1\frac{1}{4}$ to $1\frac{2}{5}$ times as long as the head; fourth toe, from the base of the fifth, 1 to $1\frac{1}{4}$ times as long as the head. Tail $1\frac{1}{2}$ to $1\frac{4}{5}$ times as long as head and body.

Upper head-shields smooth, flat or feebly convex. Suture between the nasals very short, usually not more than $\frac{1}{4}$, rarely $\frac{1}{3}$, the length of the frontonasal, which is as long as broad or a little broader than long, as broad as or a little broader than internarial space†; prefrontals $1\frac{1}{2}$ to $1\frac{3}{4}$ times as long as broad; frontal shorter than its distance from the end of the snout, 2 to $2\frac{1}{2}$ times as long as broad, rounded or truncate in front, narrow behind; parietals as long as broad or broader than long, outer border straight or concave; a small occipital often present behind the suture between the parietals. 3 or 4 supraoculars; first shorter than second, usually entire or accompanied by a granule on the inner side, rarely broken up into

* Although females measuring between 45 and 50 millim. without the tail, may be gravid.

† Longitudinally divided into two in a male from Jerusalem.

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several small shields and granules; fourth small, if distinct, often separated from third by granules; second and third supraoculars separated by one or, rarely, two series of granules from the superciliaries, which are 6 or 7, rarely 5, in number, the first longest and usually in contact with the whole outer border of the first supraocular. Anterior loreal much shorter than second; 5 upper labials, rarely 4 or 6, to below the centre of the eye; subocular sharply keeled below the eye, lower border rounded or very openly angular, resting on the fourth, fifth and sixth (rarely fourth and fifth, fifth to seventh, or fourth to seventh) upper labials. Two large upper temporals (rarely one), first the longer; temporal scales granular, convex or obtusely keeled, upper minute, lower much larger; a small tympanic shield rarely present; 3 to 5 rounded or obtusely pointed lobules usually forming a denticulation in front of the tympanum.

5 pairs of chin-shields, the first three in contact in the middle. 25 to 41 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate, juxtaposed in front, gradually enlarged and imbricate towards the collar; gular fold usually present, sometimes very indistinct. Collar free, curved, composed of 8 to 13 plates.

Dorsal scales granular or subrhomboidal, usually feebly keeled, sometimes smooth or flat and rather strongly keeled, scarcely enlarged on the posterior part of the back, 60 to 80, usually 65 to 75, across the middle of the body*; the scales minutely granular on the upper part of the sides, enlarged on the lower part and passing gradually into the ventral plates. Ventral plates mostly as long as broad, but some a little broader than long or a little longer than broad, forming irregular longitudinal and angular transverse series; 14, rarely 16, very rarely 12, plates in a transverse series in the middle of the body; 27 to 36 transverse series. Preanal region often covered with small irregular plates, sometimes with an enlarged median plate in front of the vent.

15 to 27 femoral pores on each side, the two series usually meeting in the middle. Fingers with 4 series of scales, the series on each side forming the feeble denticulation; toes with only 3 series of scales, the serration on the outer side much stronger than that on the inner, very strong on the fourth toe, where the lobes of the fringe at least equal, and usually exceed, the diameter of the toe; 21 to 26 unicarinate, less frequently feebly tri- or quinquecarinate, lamellæ under the fourth toe.

* Anderson usually gives higher numbers which is due to his having counted higher up than the middle of the body.

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Upper caudal scales very oblique and diagonally keeled, those at the base nearly as long as broad, usually strongly, sometimes feebly keeled, lower smooth or feebly keeled in the basal part of the tail; one or two series of small scales usually present on the mid-dorsal line of the basal part of the tail; 24 to 36 scales in the fourth or fifth whorl.

Greyish above, with a darker reticulation, or with numerous small round whitish dark-edged spots, or with small blackish dots or vermicular lines sometimes forming wavy transverse lines; lower parts white, the throat sometimes bluish grey; tail often with a lateral series of blackish spots. Some specimens of a yellowish-grey sand-colour with the markings very indistinct. Young grey above, with numerous round white spots, and two white streaks along each side of the body and a dark streak along each side of the tail, which is bluish at the end.

Measurements (in millimetres):

	1.	2.	3.	4.	5.	6.
From end of snout to vent	76	70	65	68	56	50
„ „ „ fore limb	30	26	25	24	21	18
Length of head	19	18	18	16	14	13
Width of head	13	12	12	10	9·5	9
Depth of head	9	9	9	8	7	6
Fore limb	26	23	23	21	22	17
Hind limb	48	41	44	40	36	34
Foot	25	20	22	20	18	16
Tail	140	115	107	120	90	80

1. ♂, In Salah. 2. ♂, Jerusalem. 3. ♂, Is. of Suez. 4. ♀, In Salah. 5. ♀, Cairo. 6. ♀, Fayum.

Habitat.—Long known from Egypt, the Sinaitic Peninsula and Palestine, this form has recently been discovered by Dr. C. Christy in Mesopotamia at Basra and by Dr. E. Hartert in the Algerian Sahara, at In Salah, the southernmost point at which zoological collections have been made.

Var. LONGIPES, Boulenger.

A form remarkable for its long and slender hind limbs and its very small scales occurs in the interior of the Algerian Sahara along with the var. *inornatus*.

Head as in the typical form. Hind limb (males) reaching the eye or between the ear and the eye; foot $1\frac{1}{3}$ to $1\frac{1}{2}$ times as long as the head, fourth toe $1\frac{1}{5}$ to $1\frac{1}{3}$ times. First supraocular entire in the three specimens from Wargla and in the one from El Wed, with one or two

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small scales on the inner side in the other, fourth broken up into small scales or granules; one or two series of granules between the second supraocular and the superciliaries, two or three between the third and the superciliaries, which are 4 to 6 in number; a series of granules usually separates the parietals behind the interparietal. Ear with 3 to 5 long pointed lobules. 31 to 42 gular scales in a straight line.

Dorsal scales very small, roundish-subrhomboidal, flat or feebly convex, rather strongly keeled, laterals, above those that merge into the ventral plates, very minute; 65 to 80 scales across the middle of the body. Ventral plates mostly as long as broad or longer than broad, not forming longitudinal series, in 31 to 37 transverse series, the broadest of which contain 16 plates. A more or less enlarged preanal plate. 22 to 29 femoral pores on each side. 25 to 30 feebly unicarinate lamellæ under the fourth toe. 36 to 40 scales in the fourth or fifth caudal whorl.

Yellowish or reddish sand-colour, with faintly marked reticulation and light and dark dots as in the typical *A. scutellatus*.

Measurements (in millimetres):

	Wargla.	Wed Nça.
From end of snout to vent . .	62	56
„ „ „ fore limb .	25	21
Length of head	16	14
Width of head	10	9
Depth of head	7	6
Fore limb	20	20
Hind limb	42	40
Foot	22	21
Tail	97	100

Three male specimens, from Wargla, form part of the Lataste Collection. A fourth was obtained not far from Wargla, between the Wed Nça and El Alia, near Guerrara, by Dr. E. Hartert in 1912, and a fifth at El Wed, E. of Tuggurt, by Mr. Harding King in 1909. This is probably the larger variety observed by Werner (l.c. 1894) between Mraïer and Temacin.

Var. AUDOUINI, Boulenger.

A female from Wadi Halfa (Anderson Collection) agrees pretty well with one of the figures of *L. olivieri* of Audouin, and as it differs, as well as the specimens from the same locality associated with it, by a lower number of scales, which are rather strongly keeled, I have decided to uphold Audouin's lizard in a varietal sense, although the

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name *olivieri* cannot be used for it, having been restricted by Milne-Edwards to the *Eremias* confounded with it in the Description de l'Egypte.

The shape of the head and the general proportions are much as in the typical form, but the hind limb is often a little shorter, reaching the collar, the ear, or between these two points in males, the axil, the shoulder, the collar, or a little beyond, in females; tail 1½ to 2 times length of head and body.

Dorsal scales rhombic, flat, juxtaposed or subimbricate, and strongly keeled, the upper laterals often only a little smaller and also keeled: 50 to 59 scales across the middle of the body. Ventral plates in 12 or 14 longitudinal series; 28 to 38 transverse series. 20 to 26 lamellæ under the fourth toe. 18 to 26 femoral pores on each side. 24 to 32 caudal scales in the fourth or fifth whorl.

The type specimen is represented as with distant blackish dots and a broad light lateral band from the ear to the thigh, bordered by a blackish streak beneath, and broken up here and there on the body by dark vertical lines. The specimen from Wadi Halfa mentioned above has the white lateral band continuous and edged above by a series of ocellar spots. Other specimens from the same locality are greyish, speckled, vermiculated or reticulated with blackish. Among specimens from Tripoli and Tunisia, some are speckled above and ocellated on the sides (males), or uniform grey with a whitish dark-edged lateral band and a blackish streak along each side of the tail (females) or with traces of the markings of the young. Young (from Homs, Tripoli) with white streaks, 4 dorsals and one on each side, the interspaces dark grey with small white spots; limbs with large round white spots; tail red in some specimens, blue in others.

Measurements (in millimetres):

	1.	2.	3.	4.	5.	6.
From end of snout to vent . .	72	75	65	62	64	60
„ „ „ fore limb .	28	27	23	23	22	19
Length of head	18	18	16	16	15	14
Width of head	12	12	10	11	10	9
Depth of head	9	10	8	8	7·5	7
Fore limb	25	25	21	22	20	19
Hind limb	46	45	39	39	38	33
Foot	24	23	19	20	19	18
Tail	120	137	118	—	112	95

1. ♂, Wadi Halfa. 2. ♂, Homs. 3. ♂, Wed El Kreil. 4. ♀, Wadi Halfa. 5. ♀, Homs. 6. ♀, Duirat.

Habitat.—Egypt, Nubia, Tripoli, and Southern Tunisia.

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Var. AUREUS, Günther.

The specimens from the extreme west of the Sahara (Rio de Oro and Cape Jubi) agree with the typical form in the longer snout,* with the var. *inornatus* in the large, strongly keeled dorsal scales, and differ from both in the subocular resting nearly constantly on two upper labials only, the fourth and the fifth.†

Apart from the number of labials, this form is easily distinguished from the var. *inornatus* by the narrower snout, more suddenly constricted from the base. The hind limb reaches the collar or between the collar and the ear in males, the shoulder or the collar, rarely a little beyond, in females. Tail $1\frac{1}{2}$ to $1\frac{3}{4}$ times as long as head and body. Four well-developed supraoculars: 5 or 6, rarely 7, superciliaries; one series of granules between the supraoculars and the superciliaries, one in front and two behind; sometimes‡ the series of granules is incomplete, and the second supraocular is in contact with the second, or second and third, superciliaries; 2 or 3 (rarely 4) rather large, obtusely pointed lobules in front of the ear; third pair of chin-shields sometimes§ separated in the middle. 25 to 36 gular scales in a straight line. Dorsal scales flat, juxtaposed or subimbricate, strongly keeled; 42 to 58 scales across the middle of the body, usually 46 to 55. Ventral plates in 14 (rarely 12) irregular longitudinal and 30 to 34 transverse series, mostly as long as broad or a little broader than long, or a few of them considerably broader than long. Basal upper caudal scales usually a little broader than long, usually without median series of small scales; 22 to 30 scales in the fourth or fifth whorl. 17 to 26 femoral pores on each side, usually 20 to 24. 19 to 23 lamellæ under the fourth toe.

Grey, yellow, or green above, uniform or with small or large dark dots, vermiculations or reticulations; females sometimes with six pale grey longitudinal streaks bearing series of small blackish spots, or with six nuchal and four dorsal series of small blackish spots. Young marked as in *A. vulgaris*, with white streaks separated by black ones, six on the nape, the median pair fusing to one on the anterior part of the back, four on the posterior part of the back, and three on the base of the tail; limbs with large round white spots; tail blue at the end.

* The specimen figured by Günther (l.c., p. 299) as the typical form represents the var. *inornatus*, distinguished from the var. *aureus* by a shorter snout.

† Two exceptions (subocular resting on fifth and sixth labials) among some 30 specimens from the Rio de Oro.

‡ 9 specimens.

§ 3 specimens.

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Measurements (in millimetres):

	♂	♀
From end of snout to vent	62	55
,, ,, ,, fore limb	24	20
Length of head	16	14
Width of head	12	9
Depth of head	8	7
Fore limb	21	19
Hind limb	37	32
Foot	19	16
Tail	112	85

Habitat.—Cape Jubi, Southern Morocco, and Rio de Oro, Spanish Sahara.

Var. INORNATUS, Gray (*exiguus*, Lataste).

Size smaller than in the typical form, not exceeding 60 millim. from snout to vent. Head usually less than 4 times in length to vent. Snout a little shorter, usually less than once and a half the length of postocular part of head, the keels bordering the depression in the prefrontals and frontal plates usually stronger; hind limb rarely reaching the eye in the males,* usually the collar or between the collar and the ear, the shoulder, the collar, or between the collar and the ear in females; foot $1\frac{1}{5}$ to $1\frac{1}{4}$ times as long as the head, fourth toe not or but slightly longer than the head. Tail $1\frac{1}{2}$ to 2 times as long as head and body.

Prefrontals $1\frac{1}{5}$ to $1\frac{1}{2}$ times as long as broad; frontal $1\frac{2}{3}$ to 2 times as long as broad; subocular usually resting on fourth, fifth and sixth upper labials, rarely on fifth, sixth, and seventh, or fourth and fifth; auricular lobules sometimes absent, sometimes rather long and pointed. Scales usually more rhombic or flat than granular, more or less strongly keeled, rarely feebly keeled,† 40 to 65, usually 46 to 58, across the middle of the body. Ventrals sometimes forming more regular longitudinal series, usually 14, rarely 12 or 16, in number; 29 to 35 transverse series; in some of the specimens most of the ventrals decidedly broader than long. 23 to 37 gular scales in a straight line. 16 to 25 femoral pores on each side, usually 17 to 23. 18 to 25 lamellæ under the fourth toe. 22 to 35 scales in the fourth or fifth caudal whorl.

Pale grey or yellowish or reddish sand-colour, or almost brick-red, sometimes uniform, more often with a darker reticulation or with

* Male from Aïn Sefra.

† Female from Bou Saada.

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small light or dark spots or dots; females sometimes with a whitish lateral streak edged below by a dark one running along each side of the belly and bearing a series of round white spots, exceptionally* with four dorsal streaks darker than the ground-colour or bearing light spots or whitish or bluish grey each with a series of black spots, and with a black lateral streak on the tail; such females evidently derived from young bearing white longitudinal streaks; other young merely reticulate like many of the adults.†

Measurements (in millimetres):

	1.	2.	3.	4.
From end of snout to vent . .	60	54	53	50
,, ,, ,, fore limb .	23	21	20	19
Length of head	16	14	14	14
Width of head	10	10	9	9
Depth of head	8	7	7	7
Fore limb	21	19	19	18
Hind limb	37	33	31	30
Foot	19	16	16	15
Tail	110	25	90	78

1. ♂, Hadjira. 2. ♂, Bou Saada. 3. ♀, Tripoli (type). 4. ♀, Bou Saada.

The habitat of this variety is confined to Tripoli, the Tunisian and Algerian Sahara, whence it penetrates into the southern sandy parts of the Plateaux.

Var. DUMERILI, M.-Edwards.

Resembles the var. *inornatus* in the small size, and the form of the head and body, but foot longer, $1\frac{1}{3}$ to $1\frac{1}{2}$ times the length of the head; hind limb reaching the collar, or, usually, between the collar and the ear; tail $1\frac{1}{2}$ to 2 times length of head and body.

Frontal 2 to $2\frac{1}{3}$ times as long as broad; parietals always broader than long; first supraocular often with one to three small shields detached from it on the inner side, fourth often disintegrated into small shields and granules; 5 or 6 superciliaries; one series of granules between the supraoculars and the superciliaries, or one in front and two behind; subocular resting on the fourth, fifth and sixth, or fifth, sixth and seventh, rarely fourth and fifth, upper labials; 3 to 5 rounded or obtusely pointed auricular lobules; 20 to 30 (usually 22 to 27) gular scales in a straight line. Dorsal scales rhombic,

* Three from Bou Saada, six from Aïn Sefra.

† As in *A. pardalis*, young specimens appear to be seldom met with.

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juxtaposed or subimbricate, strongly keeled, much larger than the scales on the upper part of the sides; 37 to 55 scales across the middle of the body, usually 39 to 48. Ventral plates mostly a little broader than long, some occasionally much broader than long, usually in regular longitudinal and feebly angular transverse series; 28 to 35 transverse series, the longest of which contain usually 12 plates, sometimes 14, very rarely 10. 14 to 20 femoral pores on each side,* usually 14 to 18. 19 to 22 lamellæ under the fourth toe. Basal upper caudal scales often a little broader than long; 22 to 30 caudal scales in the fourth or fifth whorl.

Adult grey or pale reddish brown above, with numerous round light spots, or with dark and light spots, often with three dark longitudinal streaks and with a dark lateral band spotted with white; basal part of the tail with three dark streaks. Young usually with four whitish longitudinal streaks on the upper surface and one on each side; sometimes closely spotted with white and with merely the lateral white streak, as in the typical form.

Measurements (in millimetres):	1.	2.	3.
From end of snout to vent	52	55	49
,, ,, ,, fore limb	20	19	17
Length of head	14	13	11
Width of head	10	9	7
Depth of head	8	7	6
Fore limb	18	18	16
Hind limb	35	31	30
Foot	19	17	16
Tail	95	88	—

1. ♂, Dakar. 2. ♀, Dakar. 3. ♀, Senegal (type).

Habitat.—West Africa, from Mauritania to Cape Verd.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
Forma typica.									
♂ Cairo	64	69	14	34	11	30	22–23	21	5
♀ ,,	56	72	14	33	9	29	24	22	5
♂ ,,	50	62	14	30	9	29	19	22	5
,, Giza, near Cairo	59	69	14	32	10	30	20–21	22	5
,, ,, ,,	53	67	14	30	12	27	20–21	23	5
♀ ,, ,,	58	65	12	33	9	33	20–21	22	5
,, ,, ,,	49	64	14	32	10	32	18–20	24	6–5
,, ,, ,,	49	68	14	32	10	38	21	22	6–5

* Sometimes 12 or 13 according to Boettger.

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	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Demare, Libyan Desert	59	62	14	32	10	36	21–22	21	6–5
„ Wadi Natron, Egypt	72	71	14	32	11	31	21 23	20	5
„ „ „	68	76	14	33	11	38	20 22	24	6–5
„ „ „	55	65	14	30	12	29	20–22	23	5
„ „ „	49	72	14	30	10	29	21	21	5
♀ „ „	58	80	14	36	12	34	21	21	5
„ „ „	58	69	14	34	11	33	21	24	5
„ „ „	53	77	14	33	10	29	21 20	23	5
„ „ „	50	64	14	32	9	27	20 21	22	5
„ „ „	44	72	14	31	11	30	20	23	5
„ „ „	41	71	14	29	9	25	16–15	22	5
♂ Fayum	62	60	14	31	13	28	22	26	5
♀ „	50	68	14	30	8	26	18–19	23	5
♂ Wadi Halfa, Nubia	70	65	14	31	9	35	23–24	24	5
♀ „ „	61	66	14	34	11	32	22 24	22	5
„ „ „	56	66	14	33	10	35	18–21	22	4–5
„ Moses Wells, Suez	57	69	14	33	13	33	21–20	22	5
♂ Isthmus of Suez	65	75	14	31	11	31	22 21	24	5
♀ „	56	72	14	27	9	28	19 20	21	5
♂ In Salah, Alger. Sahara	77	66	14	33	9	29	20	21	5
♀ „ „	68	67	16	31	10	29	18	21	5
„ „ „	62	67	14	33	10	32	19–20	21	5
♂ Wed Hebron, Sinai	64	71	14	33	8	31	22–21	23	5
♀ „ „	55	68	14	33	10	29	22–20	22	6–5
♂ Jaffa	68	70	14	35	10	38	27–26	24	5
„ „	62	69	14	33	10	39	26–25	22	5
„ „	57	71	14	34	11	31	23–24	21	5
♀ „	52	75	14	34	11	39	26–24	21	5
♂ Jerusalem	70	75	14	32	10	38	26	23	5
♀ „	59	73	16	35	11	41	27–26	24	5
„ „	47	75	16	35	10	38	23	22	5
♂ Basra, Mesopotamia	57	62	12	29	9	31	21–23	21	5
Var. *longipes*.									
♂ Wargla, Alger. Sahara	62	75	16	33	9	39	26–25	27	5
„ „ „	59	80	16	37	7	34	25–24	30	5
„ „ „	55	77	16	32	11	40	27–29	29	5
„ Wed Nça-El Alia, Alger. Sahara.	56	75	16	31	10	42	25–24	25	5
„ El Wed, E. of Tuggurt, „	60	65	16	33	10	31	23–22	26	5–6
Var. *audouini*.									
♂ Wadi Halfa, Nubia	72	56	14	32	11	31	23	23	5
„ „ „	72	57	14	32	11	31	21–22	26	5
„ „ „	70	54	14	30	11	29	21	22	5
♀ „ „	62	55	14	32	10	34	19–21	24	5
„ „ „	54	59	14	30	9	29	18–20	22	4
♂ Homs, Tripoli	73	52	14	31	11	28	21–20	20	5

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	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Homs, Tripoli	68	53	14	35	15	34	21	21	5
♀ „	62	52	14	37	15	38	21–24	22	5
♂ Duirat, Tunisia	67	50	14	33	12	30	19	20	5
„ „	65	59	14	34	13	32	26–25	21	5
„ „	63	50	12	32	10	34	23–24	21	5
♀ „	60	53	12	34	12	30	22	20	5
„ „	60	55	12	33	12	30	20	21	5
„ „	57	52	14	35	8	30	19-20	20	5
„ „	54	57	12	33	10	30	19	22	5
♂ Wed el Kreil, Tunisia	64	53	14	33	12	30	24–23	23	5
Var. *aureus.*									
♂ R. de Oro (type)	62	46	14	30	10	30	23–25	22	4
„ „ „	61	55	12	32	11	35	22–24	22	4–5
„ „ „	60	51	14	33	11	36	22	22	4
„ „ „	58	50	14	31	9	29	21	23	4
„ „ „	58	53	14	33	8	33	23–21	21	4
„ „ „	58	55	14	31	10	32	23	21	4
„ „ „	58	50	12	32	8	33	24–26	22	4
„ „ „	56	53	14	31	10	26	22	20	4
„ „ „	54	55	14	33	10	30	22–23	20	4
„ „ „	53	47	14	32	11	28	24–25	20	4
♀ „ „	58	47	14	33	9	25	21–20	19	4
„ „ „	55	51	12	32	10	30	21–22	21	5
„ „ „	53	53	14	34	11	29	21	20	4
„ „ „	53	58	14	31	11	29	20	21	4
„ „ „	53	46	14	31	12	30	23–24	21	4
„ „ „	53	53	14	32	9	31	22–23	21	4
„ „ „	53	54	14	32	10	33	21–22	21	4
„ „ „	52	42	14	30	8	28	20–19	20	4
„ „ „	52	47	14	33	9	32	22–23	23	4
„ „ „	52	48	14	33	9	28	21–20	23	4
„ „ „	47	54	12	31	10	32	19–20	20	4
„ „ „	47	48	14	32	9	31	20–21	21	4
♂ Cape Jubi	56	50	14	31	7	28	21–19	21	4
♀ „	50	53	14	30	10	25	17	20	4
„ „	50	49	14	30	10	27	22–21	22	4
„ „	48	52	14	30	10	30	21–20	20	5–4
Var. *inornatus.*									
♀ Tripoli (type)	53	54	12	34	14	23	19–18	20	5
♂ S. of Gafsa, Tunisia	55	53	12	33	10	33	20–19	21	5
„ Bou Saada, Algeria	52	52	14	31	12	26	22–21	21	5
„ „	51	52	14	35	10	31	22–23	21	5
„ „	51	49	14	35	14	28	24	22	5–6
„ „	49	50	14	30	14	25	20–22	21	5

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	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Bou Saada	46	58	14	31	14	28	21–22	23	5–6
„ „	46	43	14	31	11	26	21	21	4–5
„ „	51	53	14	32	10	24	21	22	5
„ „	50	53	14	32	11	30	22	20	5
„ „	49	46	14	32	10	26	20–19	21	5
„ „	47	50	14	32	10	27	23–21	21	5
♂ Bled Ahmar	45	46	14	30	10	29	20–22	23	5
♀ „	50	52	14	30	9	29	21	21	5
♂ Tibremt-Laghouat	51	52	14	30	10	25	19	22	5
„ Laghouat	52	45	14	32	9	23	19–18	21	5
„ „	52	55	14	31	10	32	22–21	21	5
♀ „	50	52	14	32	10	29	19	22	5
„ „	48	48	14	33	10	30	18–19	21	5
„ „	47	57	14	32	10	29	21–19	21	5
„ „	44	40	14	32	12	27	20–19	22	5
„ „	40	62	14	31	9	29	20	23	6–5
„ Biskra	50	60	14	32	10	26	19–18	21	5
♂ El Wed, Souf	57	55	14	31	12	33	20–22	20	5
♀ Tuggurt	55	56	14	32	11	30	19–18	20	5
„ „	53	62	12	33	10	31	21	22	5
„ „	52	51	14	32	13	28	22–21	20	4
„ „	52	53	14	33	12	24	22–20	19	5
„ Mraier	50	53	14	32	9	33	21–23	22	5
♂ Wed Nça-El Alia	53	46	14	35	9	31	20–21	21	6–5
„ „	51	45	14	32	12	27	24	23	6
♀ „	50	58	14	32	10	34	24–23	21	5
„ „	50	49	14	32	10	30	19–20	21	6
♂ Guerrara	54	46	14	32	12	30	23	23	5
„ Hadjira	60	52	12	32	12	28	25–22	21	5
„ „	57	57	14	33	9	30	21	22	5
„ „	54	50	14	32	9	29	20	23	6–5
„ „	49	49	14	33	10	25	19–18	23	5
„ „	49	58	14	31	10	31	21–22	23	5
♀ „	54	53	14	33	9	26	18–20	22	5–6
„ „	52	57	16	34	9	27	20–21	23	5
„ „	50	54	14	31	10	27	22	21	5
„ „	49	58	14	32	7	32	19–20	24	5
„ „	49	55	16	35	9	28	17–18	20	5
„ „	49	52	14	30	11	28	18–20	22	5
„ „	48	52	14	31	11	29	20–21	20	5
„ „	46	46	14	31	12	26	19	20	5
„ „	45	58	12	32	10	29	19	21	5
„ „	41	48	14	32	12	26	19	21	5
♂ Wargla	50	55	14	30	9	24	19–18	20	5
♀ „	52	49	14	33	12	32	21–20	21	5
♂ Wargla-El Golea	52	53	14	32	13	29	21	20	5
„ „	50	49	14	32	10	27	19–21	22	5

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	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Wargla-El Golea	50	57	14	30	10	31	21–23	25	5
„ „	45	54	14	34	13	28	20	24	5
„ El Golea-Fort Miribel	47	56	14	32	12	30	21	21	5
„ „	46	47	14	30	9	27	17	20	5
„ „	42	52	14	31	11	29	20–23	20	5
♀ „	42	52	14	33	11	26	16	20	5
♂ Aïn Sefra, Oran	68	62	16	32	13	36	18	19	5
„ „ „	65	60	14	29	10	35	19–22	20	5
„ „ „	50	48	14	30	13	27	17–18	18	5
„ „ „	49	65	14	32	11	37	23–21	22	6
♀ „ „	53	56	14	34	15	29	20–22	22	5
„ „ „	52	48	16	34	12	25	17–18	19	4
„ „ „	51	45	14	30	10	25	18	18	5
„ „ „	48	51	14	32	11	28	17	22	5
„ „ „	48	54	14	31	12	25	19	20	5
„ „ „	48	50	14	32	12	29	19	22	6–5
„ „ „	48	46	14	30	11	24	16–17	20	5–4
„ „ „	44	57	14	31	13	29	21	20	5
Var. *dumerili*.									
♂ Trarza Country, Mauritania	51	40	12	28	8	24	14	21	5
„ „ „	45	42	12	28	11	22	18	21	6
„ „ „	41	41	12	29	9	25	16	20	4–5
♀ „ „	51	39	12	33	10	24	16–17	20	5
„ „ „	47	40	14	32	11	25	17	20	5–6
„ „ „	43	41	12	33	9	24	17	20	5
„ „ „	43	49	12	30	12	26	16	19	5–6
„ „ „	43	39	12	30	9	25	15–16	20	5
„ „ „	42	48	12	33	9	27	17 15	21	5
„ „ „	42	44	12	30	9	22	17	22	5
„ „ „	41	47	10	32	10	23	16–15	19	5
„ „ „	40	39	14	30	10	23	15 16	21	6–5
„ „ „	40	42	12	32	8	24	15–16	21	6–5
„ „ „	40	37	12	30	10	22	15–14	20	5
„ „ „	40	40	12	30	10	20	15	20	5
„ „ „	40	41	12	34	12	26	20–19	22	5
„ „ „	40	42	12	31	9	24	15	20	5
„ Senegal (type of *L. dumerili*), **P.M.**	49	55	14	31	10	28	20–19	21	5
♂ „ **P.M.**	49	48	12	32	10	31	15	19	5
„ „ „	38	50	14	31	9	26	17–18	20	5
„ Leybar, nr. St. Louis, Senegal	57	46	12	35	9	30	19–20	19	5
„ Dakar, Senegal	52	48	14	29	9	26	14–15	19	5
„ „ „	49	45	14	31	10	24	16–17	20	5
♀ „ „	55	50	12	33	10	25	16	22	5
♂ Cape Verd, **L.M.**	51	42	12	30	10	27	14–15	21	5
Hgr. Cape Verd	38	41	12	30	8	27	16	20	5
„ „	38	42	12	28	7	23	14	20	5–6

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Synopsis of the Varieties.

I. Snout about $1\frac{1}{2}$ length of postocular part of head.

A. Usually 5 upper labials to below centre of eye.

Scales smooth or feebly keeled, rarely strongly keeled, 60 to 80 (usually 65 to 75) across middle of body; ventral plates 14 (rarely 12 or 16) in the longest transverse series; hind limb rarely reaching the eye; 21 to 26 lamellæ under the fourth toe *Forma typica.*

Scales strongly keeled, 65 to 80 across middle of body; ventral plates 16 in the longest transverse series; hind limb reaching the eye, or between the ear and the eye (males); 25 to 30 lamellæ under the fourth toe . . . . . Var. *longipes*, Blgr.

Scales strongly keeled, 50 to 59 across middle of body; ventral plates 14 (rarely 12) in the longest transverse series; hind limb not reaching beyond the ear; 20 to 26 lamellæ under the fourth toe . . . . . Var. *audouini*, Blgr.

B. Usually 4 upper labials to below centre of eye.

Scales strongly keeled, 42 to 58 (usually 46 to 55) across middle of body; ventral plates 14 (rarely 12) in the longest transverse series; hind limb not reaching the ear; 19 to 23 lamellæ under the fourth toe . . . . . Var. *aureus*, Gthr.

II. Snout not $1\frac{1}{2}$ length of postocular part of head; scales strongly keeled; usually 5 or 6 upper labials to below centre of eye; 18 to 25 lamellæ under the fourth toe.

40 to 65 (usually 46 to 58) scales across middle of body; ventral plates 14 (rarely 12 or 16) in the longest transverse series; foot $1\frac{1}{2}$ to $1\frac{3}{4}$ length of head; 16 to 25 (usually 17 to 23) femoral pores on each side . . . . . Var. *inornatus*, Gray.

37 to 55 (usually 39 to 48) scales across middle of body; ventral plates 12 (rarely 10 or 14) in the longest transverse series; foot $1\frac{1}{3}$ to $1\frac{1}{2}$ length of head; 12 to 20 (usually 14 to 18) femoral pores on each side . . . . . Var. *dumerili*, M.-Edw.

Taken in the wide sense, *A. scutellatus* shows an enormous range of variation in the number of scales and plates, viz.: scales across body, 37–80; longitudinal series of ventrals, 10–16; transverse series of ventrals, 27–38; collar-plates, 7–15; gular scales, 20–42; femoral pores, 12–29; lamellæ under fourth toe, 18-30.

11. ACANTHODACTYLUS FRASERI.

Acanthodactylus fraseri, Boulenger. Journ. Bomb. N. H. Soc. xxv, 1918, p. 373, and Bull. Soc. Zool. France, 1918, p. 148.

Habit rather slender, body moderately depressed. Head $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as broad, its length $3\frac{4}{5}$ or 4 times in length to vent, its depth equal to the distance between the centre of the eye and the tympanum; a lanceolate concavity from the frontonasal to the middle

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of the frontal; snout obtusely pointed, $1\frac{1}{2}$ times as long as the post-ocular part of the head, with rather sharp canthus and scarcely concave loreal region; nasals feebly swollen. Pileus twice as long as broad. Neck narrower than the head. The hind limb reaches the collar; foot $1\frac{1}{4}$ to $1\frac{1}{3}$ times as long as the head; fourth toe, from the base of the fifth, as long as the head. Tail $1\frac{2}{3}$ times as long as head and body.

Upper head-shields convex, smooth or slightly rugose. Suture between the nasals $\frac{1}{4}$ the length of the frontonasal, which is a little broader than long and broader than the internarial space; prefrontals a little longer than broad, forming an extensive median suture; frontal shorter than its distance from the end of the snout, $1\frac{2}{3}$ to $1\frac{3}{4}$ times as long as broad, rounded in front, narrow behind; parietals as long as broad, or slightly broader than long, outer border concave. 3 or 4 large supraoculars, first shorter than second, fourth small or replaced by granules; 5 or 6 superciliaries, first longest and in contact with the first supraocular, the others separated from the supraoculars by a series of granules. Anterior loreal shorter than second; 4 upper labials to below the centre of the eye, the fourth the longest; subocular sharply keeled below the eye and forming an angle wedged in between the fourth and fifth upper labials. A strongly keeled upper temporal, followed by one or two smaller shields; temporal scales granular, smooth, upper very small, lower large; a narrow tympanic shield; 4 pointed scales forming a denticulation in front of the ear-opening.

5 pairs of chin-shields, the three first in contact in the middle. 28 or 29 imbricate gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate, enlarged towards the collar. Collar free, curved, composed of 10 or 11 plates.

Scales granular and smooth or feebly keeled on the nape, rhombic and strongly keeled on the body, larger and subimbricate towards the tail, a little smaller on the sides; 48 to 50 scales across the middle of the body, 18 to 20 in a transverse series between the hind limbs. Ventral plates tessellated, forming angular transverse series, as long as broad, or slightly broader than long; 29 or 30 transverse series, the longest containing 16 plates. Preanal plates small and irregular in the female; male with a median series of three transversely enlarged plates.

18 to 23 femoral pores on each side, the two series narrowly separated in the middle. Fingers feebly serrated, with 4 series of scales; toes more strongly serrated, especially on the outer side of the fourth, the denticles of which are a little shorter than the diameter of the toe; 19 to 23 strongly unicarinate lamellæ under the fourth toe.

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Upper caudal scales much larger than the posterior dorsals, oblique, obtusely pointed, strongly and diagonally keeled, the basals nearly as long as broad, lower feebly keeled, smooth in the basal part; 28 or 30 scales in the fourth whorl.

Greyish above, with four longitudinal series of small darker spots on the back and a rather indistinct darker network on the body, white beneath.

Measurements (in millimetres):

	♂	♀
From end of snout to vent	73	60
„ „ „ fore limb	29	22
Length of head	19	15
Width of head	13	9
Depth of head	9	7
Fore limb	24	20
Hind limb	41	32
Foot	22	18
Tail	—	102

Particulars of the Type Specimens.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂	73	48	16	29	11	29	23–20	23	4
♀	60	50	16	30	10	28	18	19	4

This species is established on two specimens obtained by Capt. F. C. Fraser at Zobeya, Shariba, Lower Mesopotamia. The male is preserved in the British Museum; the female is in the Museum of the Bombay Natural History Society.

12. ACANTHODACTYLUS GRANDIS.

Acanthodactylus grandis, Bouleng. Ann. & Mag. N. H. (8) iv, 1909, p. 189, and Bull. Soc. Zool. France, 1918, p. 148.

Form stout, heavy, body depressed. Head $1\frac{1}{4}$ to $1\frac{1}{3}$ times as long as broad, its length about 4 times in length to vent, its depth equal to the distance between the centre or the anterior corner of the eye and the tympanum; cheeks swollen; a lanceolate concavity from the frontonasal to the middle of the frontal; snout obtuse or pointed, as long as postocular part of head, with obtuse canthus and feebly concave loreal region; nasals rather strongly swollen. Pileus twice as long as broad. The hind limb reaches the axil or the shoulder; foot as long as or slightly longer than the head; fourth toe, from the base

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of the fifth, a little shorter than the head. Tail $1\frac{3}{5}$ to $1\frac{2}{3}$ times as long as head and body.

Upper head-shields convex and smooth, sometimes a little rugose in the adult. Suture between the nasals very short; frontonasal broader than long, broader than the internarial space; prefrontals as long as broad or a little longer; frontal shorter than its distance from the end of the snout, $1\frac{2}{3}$ to $1\frac{3}{4}$ times as long as broad, rounded in front, narrow behind; parietals as long as broad, outer border straight or concave. Four supraoculars, first and fourth sometimes broken up, or separated from their fellows by a series of granules; a single series of granules between the supraoculars and the superciliaries, which are 6 to 8 in number. Anterior loreal shorter than second; subocular not reaching the mouth, its lower border wedged in between the fourth and fifth or fifth and sixth upper labials. A large upper temporal, followed by a smaller one; temporal scales granular, convex, lower larger; tympanic shield present; 4 or 5 pointed scales form a denticulation in front of the ear.

5 pairs of chin-shields, the first three in contact in the middle. 28 to 35 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate, juxtaposed in front, imbricate but only slightly enlarged towards the collar; gular fold very indistinct. Collar curved, free, strongly toothed, composed of 10 or 11 plates.

Dorsal scales very small, round, granular, convex, smooth, hardly enlarged on the posterior part of the back; 58 to 64 scales across the middle of the body. Ventral plates not or but little broader than long, forming 16 or 18 (rarely 14) very oblique longitudinal series and 31 or 32 angular transverse series. Preanal region covered with small and subequal plates.

16 to 24 femoral pores on each side, the two series meeting or narrowly separated in the middle. Fingers with 4 series of scales, a lateral series on each side forming the feeble denticulation; toes with only 3 series of scales, the lateral denticulation very short and not more developed on the outer than on the inner side; 20 uni- or tricarinate lamellæ under the fourth toe.

Upper caudal scales very oblique, those at the base as long as broad or a little broader than long and smooth or feebly keeled, lower smooth; 26 or 28 scales in the fourth or fifth whorl.

Greyish or fawn-colour above, with at least traces of 8 longitudinal series of dark spots on whitish streaks; the dark spots form transverse bands on the tail; sides of head with more or less distinct vertical dark bars; lower parts white, tinged with yellow on the limbs and tail.

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Measurements (in millimetres):

	♂	♀
From end of snout to vent	103	95
„ „ „ fore limb	40	35
Length of head	25	23
Width of head	20	18
Depth of head	15	14
Fore limb	33	31
Hind limb	53	48
Foot	25	24
Tail	162	—

Particulars of Specimens Examined (*types*).

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Khan Agach	103	60	16	31	11	28	20–18	20	5
„ „	80	61	18	31	10	30	22–24	20	4
♀ Jerud	95	64	16	32	10	35	22–23	20	4

This fine lizard, the giant of the genus *Acanthodactylus*, was discovered a few years ago in Syria by M. Henri Gadeau de Kerville, who obtained several specimens at Jerud and Ataïbe, east of Damascus, and near Khan Agach, between Damascus and Kutaïfe.

7. GASTROPHOLIS.

Gastropholis, J. G. Fischer, Abh. Nat. Ver. Hamb. ix, 1886, i, p. 1; Bouleng. Cat. Liz. iii, p. 7 (1887).

Head-shields normal. Nostril pierced between the nasal and a postnasal.* Lower eyelid scaly. Collar well marked. Dorsal scales small, juxtaposed; ventral plates obtusely pointed, imbricate, keeled. Digits subcylindrical, with smooth scales inferiorly. Femoral pores. Tail long, cylindrical.

East Africa.

Apart from the keeled ventral plates this genus shows the characters of *Nucras*, but it is equally related to *Lacerta*, as the form and lepidosis have more in common with *L. echinata* than with any other

* This statement has been challenged by Tornier, who appeals to a photographic figure given by him to show that I must have been mistaken. This figure is, however, so blurred that it fails to establish his point. I can make no correction to my original definition of the genus.

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species of the Lacertidæ; it appears probable that there is a direct relationship between *G. vittata* and *L. echinata*, although we cannot point to any known species to account for their common derivation, There also seems to be a distinct affinity with *Bedriagaia*.

1. GASTROPHOLIS VITTATA.

Gastropholis vittata, J. G. Fisch. l.c. pl. i, fig. 1; Bouleng. l.c.

Gastropholis lutzei, Tornier, Zool. Jahrb., Syst. xiii, 1900, p. 591, fig.

Gastropholis prasina, Werner, Zool. Anz. xxvii, 1904, p. 462.

Body depressed. Head rather strongly depressed, flat above, nearly twice as long as broad, its depth equal to the distance between centre of the eye and the tympanum, its length nearly 4 times in length to vent; snout obtusely pointed, as long as postocular part of head. Upper surface of head slightly rugose. No parietal foramen. Pterygoid teeth absent. Neck narrower than the head. The hind limb reaches the elbow of the adpressed fore limb; foot as long as the head; digits slender, compressed distally, somewhat bent at the articulations. Tail $2\frac{1}{4}$ times as long as head and body.*

Nostril pierced between two shields; nasals small, forming a very short suture behind the rostral†; frontonasal as long as broad or a little broader; prefrontals forming an extensive suture; frontal $1\frac{1}{4}$ to $1\frac{1}{3}$ times as long as broad, shorter than its distance from the end of the snout, broader than the supraoculars, but slightly broader in front than behind, its anterior border somewhat trilobate; frontoparietals as long as the frontal; parietals $1\frac{3}{4}$ times as long as broad, outer border convex; interparietal twice as long as broad; occipital shorter and broader than the interparietal,‡ from which it may be separated by a small shield. Four supraoculars, first small and on a line with the superciliaries, second slightly longer than third, fourth much larger than first; 6 or 7 superciliaries§; usually 2 or 3 small scales between the supraoculars and the superciliaries.‖ A single postnasal, forming a suture with the frontonasal; anterior loreal not half as long as second, or fused with it; 4 or 5 upper labials¶ anterior to

* 3 times in the type of *G. prasina*.

† Rostral in contact with the frontonasal in the type of *G. lutzei*.

‡ As long and twice as broad in the type of *G. prasina*.

§ 5 in the type of *G. lutzei*.

‖ Only one in the type of *G. lutzei*, none in the specimen from Morogoro.

¶ 3 on one side in the type of *G. lutzei*, 6–7 in the type of *G. prasina*.

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the subocular, which is narrower beneath than above; temporal scales small, subequal, mostly hexagonal.

Gular scales large, flat, and smooth anteriorly, larger, subimbricate, and feebly keeled towards the collar, 22 to 28 between the symphysis of the chin-shields and the median collar-plate; gular fold feeble. Collar even-edged, composed of 9 to 11* feebly keeled plates.

Scales on the body oval or rhombic, juxtaposed, feebly keeled, largest on the sides; 25 or 26 scales across the middle of the body.† Ventral plates rather strongly keeled, longer than broad, the overlapping posterior border obtusely pointed, in 12 longitudinal and 32 or 33 transverse series. Preanal region covered with two transverse series of irregular keeled plates, of which an anterior and a posterior pair may be enlarged.

Scales on upper surface of tibia rhombic, feebly keeled, smaller than largest dorsals. 10 to 12 femoral pores on each side.‡ 24 to 30 lamellar scales under the fourth toe.

Caudal scales strongly keeled, very obtusely pointed behind, in more or less distinctly longer and shorter whorls alternately, 24 to 28 in the fifth whorl behind the postanal granules.

Female pale brown above, with a broad white, black-edged dorsolateral streak from the nape to the base of the tail; tail with two series of white spots, the continuation of the dorsolateral streaks; lower parts white. The male (*G. prasina*) is described by Werner as bluish green above, tail with black and white spots, greenish white beneath.

Measurements (in millimetres):

	♂ §.	♀ (types).	
From end of snout to vent	109	82	80
,, ,, ,, fore limb	—	30	29
Length of head	27·5	21	20
Width of head	12·5	11	11
Depth of head	—	9	9
Fore limb	34·5	26	25
Hind limb	50·5	38	35
Foot	—	21	20
Tail	326	195	—

The types of this species, two females preserved in the British Museum, once formed part of Dr. J. G. Fischer's collection, and are

* 13 in the type of *G. lutzei*.

† 21 in the type of *G. lutzei*, 32 in the type of *G. prasina*.

‡ 13–14 in the types of *G. lutzei* and *prasina*.

§ After Werner.

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stated to be from Zanzibar. A third specimen, from Lindi, ex-German East Africa, preserved in the Berlin Museum, is recorded by Nieden, Mitt. Zool. Mus. Berl. vii, 1913, p. 75, and I have examined a fourth, procured by Mr. A. Loveridge at Morogoro, ex-German East Africa. *G. lutzei* (female) is from Tanga, and *G. prasina* (male) is from Usambara, both also in ex-German East Africa.

Although I have not seen the types of the two species referred to in the synonymy, I entertain no doubt that they are based on mere individual and sexual differences.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8
♀ Zanzibar (type) . . .	82	25	32	11	28	11	30	5
„ „ „ . . .	80	26	33	9	22	10–11	26	5
„ Morogoro, **N.M.** . . .	80	26	32	9	23	12	24	4

1. Length from snout to vent (in millimetres). 2. Scales across middle of body. 3. Transverse series of ventral plates. 4. Collar-plates. 5. Scales between symphysis of chin-shields and median plate of collar. 6. Femoral pores on each side. 7. Lamellar scales under fourth toe. 8. Upper labials anterior to subocular.

8. BEDRIAGAIA.

Bedriagaia, Bouleng. Ann. & Mag. N. H. (8) xviii, 1916, p. 112.

Head-shields normal. Nostril pierced between the nasal, a postnasal, the rostral, and the first upper labial. Lower eyelid scaly. Collar well marked. Dorsal scales large, rhombic, imbricate, and keeled; ventral plates obtusely pointed, imbricate, and keeled. Digits compressed, with smooth scales inferiorly. Femoral pores. Tail very long, cylindrical.

Central Africa.

This genus is intermediate between *Algiroides* and *Poromera*, agreeing with the former in the dorsal lepidosis, with the latter in the ventral, in which it resembles also *Gastropholis*.

1. BEDRIAGAIA TROPIDOPHOLIS.

Bedriagaia tropidopholis, Bouleng. t.c. p. 113, and Rev. Zool. Afr. vii, 1919, p. 14; Schmidt, Bull. Amer. Mus. N. H. xxxix, 1919, p. 497, figs., pl. xxii.

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Body moderately depressed. Head rather strongly depressed, but occipital region convex, $1\frac{3}{5}$ to $1\frac{3}{4}$ times as long as broad, its depth equal to the distance between the centre of the eye and the tympanum, its length nearly $4\frac{1}{2}$ times in length to vent; snout obtusely pointed, as long as postocular part of head. Pileus twice as long as broad. Parietal foramen present, but very indistinct. Neck as broad as the head. The hind limb reaches the elbow of the adpressed fore limb or nearly the axil; foot longer than the head; digits slender, compressed throughout, somewhat bent at the articulations. Tail nearly 3 times as long as head and body.

Nostril pierced between four shields; nasals small, forming a very short suture behind the rostral*; frontonasal a little broader than long; prefrontals forming an extensive suture; frontal $1\frac{1}{2}$ times as long as broad, a little shorter than its distance from the end of the snout, as broad as the supraoculars, but slightly broader in front than behind; frontoparietals nearly as long as the frontal; parietals $1\frac{1}{3}$ times as long as broad, outer border convex; interparietal scarcely longer than broad, or nearly twice as long as broad, as long as or a little longer than the occipital, which is broader, nearly as broad as the frontal.† Four supraoculars, first small, second and third equal, fourth small but larger than first and in contact with the upper temporal; 5 or 6 superciliaries, first or second longest; granular scales between the supraoculars and the superciliaries absent or reduced to two. A single postnasal, forming a suture with the frontonasal; anterior loreal $\frac{1}{2}$ or $\frac{3}{5}$ the length of second; 5 upper labials anterior to the subocular, which is as long beneath as above; two elongate upper temporals; temporal scales rather large, subequal, obtusely keeled.

Pterygoid teeth absent.

Gular scales granular in front, larger and feebly keeled behind, with a median patch of gradually enlarged and imbricate scales in the middle towards the collar; 24 to 28 scales in a straight line between the symphysis of the chin-shields and the median collar-plate; no gular fold. Collar very strongly serrated, composed of 8 or 9 rather large plates.

Scales on nape granular and keeled, on body large, rhombic, imbricate and diagonally keeled, passing gradually into the ventral plates; 24 or 25 scales across the middle of the body.‡ Ventral plates strongly

* Rostral in contact with the frontonasal in one of the specimens in the American Museum.

† In the specimen figured by Schmidt the occipital is a little longer than the interparietal and much narrower than the frontal.

‡ 23 to 26 according to Schmidt.

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imbricate, the posterior border obtusely pointed, the largest a little broader than long, in 10 longitudinal and 29 to 33 transverse series. 6 smooth preanal plates, two larger pairs, one in front of the other, and a smaller pair on each side, or 5 plates, two in front and three behind.*

Upper surface of limbs with large, rhombic, keeled scales. 12 or 13 femoral pores on each side. 28 to 30 lamellar scales under the fourth toe.

Caudal scales forming whorls of nearly equal length, keeled and pointed behind, above and beneath, 24 in the fifth whorl behind the postanal granules.

Bluish green above and beneath (in spirit), darker on the back, or very dark olive above and greenish white beneath ; eight longitudinal series of small round light spots on the nape and back, with small black spots between them ; head dark olive above, with a few small black spots, bluish green on the sides, with black lines on the sutures between the labial shields ; upper surface of anterior third of tail with regular dark cross-bars.

Measurements (in millimetres) :

	1.	2.
From end of snout to vent . . .	83	88
,, ,, ,, fore limb . .	30	30
Length of head	19	20
Width of head	11	12
Depth of head	8	9
Fore limb	26	32
Hind limb	40	47
Foot	21	25
Tail	247	245

1. ♀, type. 2. ♂, Equateur District.

This species was described from a single female specimen, probably not full-grown, obtained by Dr. C. Christy at Madje, Ituri district, Belgian Congo, and preserved in the Congo Museum, Tervueren. A second specimen, a male, from the Equateur district of the Belgian Congo, was received by the Congo Museum, and is now in the British Museum. Three further specimens, from the same locality as the type, form part of the collection of the American Museum Congo Expedition.

* Sometimes 2 large preanals, one in front of the other, according to Schmidt ; the difference is not sexual as in *Poromera*.

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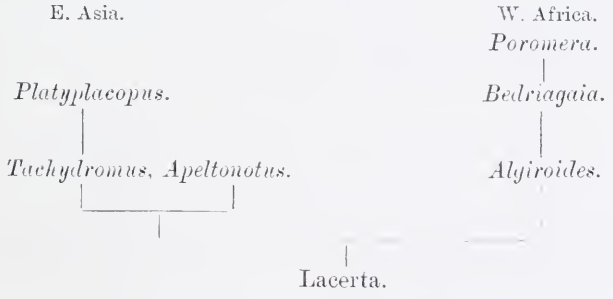
9. POROMERA.

Poromera, Bouleng. Cat. Liz. iii, p. 6 (1887); Mocquard, Bull. Soc. Philom. (8) ix, 1897, p. 6.

Head-shields normal. Nostril pierced between the nasal, two postnasals, and the first upper labial. Lower eyelid scaly. Collar distinct. Back with large, plate-like, subimbricate scales with strong keels forming continuous lines, sides with small juxtaposed scales; ventral plates pointed, imbricate, keeled. Digits slightly compressed, with tubercular lamellæ inferiorly. Femoral pores forming a long series. Tail very long, cylindrical.

West Africa.

Apart from the numerous femoral pores, this genus reproduces the characters of *Tachydromus*, and has probably been evolved in the West out of *Lacerta* as the former has in the East; but whereas there is every reason to believe that *Tachydromus* is directly derived from *Lacerta*, the direct ancestors of *Poromera* would probably fall under the genera *Algiroides* or *Bedriagaia*, or both, as expressed by the following diagram:



1. POROMERA FORDII.

Tachydromus fordii, Hallow. Proc. Ac. Philad. 1857, p. 48.

Poromera fordii, Bouleng. Cat. Liz. iii, p. 6 (1887); Günth. Ann. & Mag. N. H. (6) xvii, 1896, p. 264; Bouleng. Proc. Zool. Soc. 1900, p. 449, pl. xxxi, fig. 1.

Poromera haugi, Mocquard, Bull. Soc. Philom. (8) ix, 1897, p. 6.

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Body moderately or rather feebly depressed. Head feebly depressed, $1\frac{1}{2}$ to $1\frac{3}{4}$ times as long as broad, flat above, its depth equal to the distance between the centre of the eye and the tympanum, its length $3\frac{3}{4}$ to 4 times in length to vent ($3\frac{1}{3}$ to $3\frac{1}{2}$ times in the young); snout pointed, as long as or slightly longer than postocular part of head, with sharp canthus and nearly vertical loreal region. Pileus 2 to $2\frac{1}{3}$ times as long as broad. Hind limb reaching the ear or between the collar and the ear in males, the collar or a little beyond in females; foot a little longer than head. Tail nearly 2 to $2\frac{1}{2}$ times as long as head and body.

Nostril between four shields; nasals forming a rather long or very short suture behind the rostral*; upper head-shields with strong keels and short striæ; internasal as long as broad or a little longer; prefrontals sometimes forming a median suture, more often separated by a small azygos shield or by the frontonasal being in contact with the frontal; frontal bi- or tricarinate, as long as or a little shorter than its distance from the end of the snout, $1\frac{3}{4}$ to 2 times as long as broad, of nearly equal width throughout or a little narrower behind than in front; parietals $1\frac{2}{3}$ to $1\frac{3}{4}$ times as long as broad, outer border sometimes feebly emarginate for the accommodation of the first anterior temporal; interparietal narrow, 2 to $2\frac{1}{2}$ times as long as broad (broader in the young); occipital small, not more than half as long as the interparietal; 3 or 4 supraoculars, first very small and keeled if present,† second often a little longer than third, fourth broken up into 3 to 5 keeled scales; 5 or 6 superciliaries, first long and narrow and sharply keeled, the others very narrow and separated from the supraoculars by 5 or 6 keeled scales.

Rostral not entering the nostril; two superposed postnasals; anterior loreal as long as or shorter than second; 4 to 6 upper labials‡ anterior to the subocular, which is not or but little narrower beneath than above; two, rarely three, large, keeled upper temporals, first longest; temporal scales rhombic or hexagonal, strongly keeled, larger beneath than above; a narrow tympanic shield usually present.

Parietal foramen usually absent. Pterygoid teeth absent.

Four pairs of chin-shields, the two or three anterior meeting on the middle line. Anterior gular scales small and granular, generally enlarged, imbricate, pointed and keeled towards the collar, which contains 12 to 14 pointed, strongly keeled plates; 24 to 34 scales

* A small azygos shield between the nasals in a male from Butanga.

† Absent in a male and in a female from the Benito River.

‡ Out of 32 cases, 5 twenty-two times, 4 seven times, 6 three times.

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in a straight line in the middle, including the collar-plate. No gular fold.

6 or 8 longitudinal rows of large, hexagonal or rhombic dorsal plates, with very strong keels forming continuous lines; sometimes 8 rows in front and 6 behind; small scales may be intercalated between the dorsal plates; upper lateral scales small, keeled, juxtaposed, lower larger, imbricate, strongly keeled, and graduating into the ventral plates, which are similar to the dorsals, but pointed or shortly mucronate, in 8 or 10 longitudinal and 22 to 27 transverse series. Males with a large preanal plate bordered by a semicircle of pointed keeled scales; females with the preanal region covered with pointed keeled scales.

Limbs with large rhombic keeled scales. 10 to 15 femoral pores on each side, usually 11 to 13, the series not extending to the distal end of the thigh. Subdigital lamellæ with rounded tubercles, which may be very prominent, 20 to 25 under the fourth toe.

Caudal scales pointed and very strongly keeled, the whorls subequal, the fourth or fifth containing 14 scales.

Dark olive above, often turning to bronze or copper-colour posteriorly; two light dorsal streaks, bright bluish white, sometimes edged with black, anteriorly, each originating from the middle of the posterior border of the parietal shield, often disappearing on the posterior part of the back; the back between the light streaks sometimes blackish, which shade is continued as a stripe to the base of the tail; traces of a light vertebral streak sometimes present in the young; upper lip bluish green. Tail uniform or with a dorsal series of black spots. Lower parts greenish white in front, salmon-pink behind.

Measurements (in millimetres):

	1.	2.	3.	4.	5.
From end of snout to vent . .	64	62	58	65	47
„ „ „ fore limb .	26	24	24	25	18
Length of head	17	17	15	16	13
Width of head	10	11	10	9	8
Depth of head	8	8·5	7	8	6
Fore limb	26	26	26	26	19
Hind limb	38	38	38	38	29
Foot	19	19	19	19	15
Tail	155	130	112	147	107

1. ♂, Benito R. 2. ♂, Batanga. 3. ♂, Kribi. 4. ♀, Benito R. 5. ♀, Lambarene.

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Particulars of Specimens Examined.

		1.	2.	3.	4.	5.	6.	7.	8.
♂	Batanga, Cameroon . .	62	34	8	8	23	27	11–12	21
,,	,, ,, . .	59	36	8	8	24	26	13	22
♀	,, ,, . .	61	32	8	8	24	31	10–11	25
♂	Kribi, ,, . .	58	34	8	10	22	27	13–12	23
♀	,, ,, . .	63	30	6	8	22	29	11	21
♂	Benito R., Spanish Guinea	64	35	6	8	23	34	13	22
,,	,, ,, .	58	31	8	10	23	29	13	22
♀	,, ,, .	65	30	8	8	24	29	12	23
,,	,, ,, .	65	32	8	8	25	26	13	22
,,	,, ,, .	61	30	8	8	27	28	13–12	22
,,	,, ,, .	61	30	8	8	23	24	11	20
,,	Lambarene, Ogowe . .	47	34	8	8	24	31	14–15	24

1. From end of snout to vent (in millimetres). 2. Scales round middle of body. 3. Longitudinal series of dorsal plates, in middle of body. 4. Longitudinal series of ventral plates. 5. Transverse series of ventral plates. 6. Gular scales, collar included, in longitudinal median series. 7. Femoral pores (right and left if differing). 8. Lamellæ under fourth toe.

In addition to the above, I have examined the type specimen, a male from the Gaboon, preserved in the Museum of the Academy of Philadelphia.

Habitat.—Cameroon, Spanish Guinea, French Congo.

10. APELTONOTUS.

Apeltonotus, Bouleng. Mem. As. Soc. Beng. v, 1917, p. 233.

Head-shields normal. Nostril pierced between the nasal, a postnasal, and the first upper labial. Lower eyelid scaly. Collar distinct. Dorsal scales small, hexagonal, subimbricate, keeled; ventral plates obtusely pointed, imbricate, of median rows smooth or faintly keeled, of outer row strongly keeled. Digits compressed, with smooth scales inferiorly. Femoral pores reduced to 2 or 3 on each side. Tail very long, cylindrical.

Loo-Choo Islands.

This genus is very closely allied to *Tachydromus*, to which it stands in the same relation as *Bedriagaia* to *Poromera*. Could we find a form

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combining the dorsal scales of *Apeltonotus dorsalis* with the other characters of *Tachydromus amurensis* we would have the connecting link between the latter and *Lacerta vivipara*.

1. APELTONOTUS DORSALIS.

Tachydromus dorsalis, Stejneger, Smithson. Quarterl. (Misc. Coll. xlvii), 1904, p. 294, and Herp. Japan, p. 229, fig. (1907); Van Denburgh, Proc. Calif. Ac. (4) iii, 1912, p. 242.

Apeltonotus dorsalis, Bouleng. t.c. p. 234.

Body feebly depressed. Head $1\frac{3}{4}$ times as long as broad, its depth equal to the distance between the centre of the eye and the tympanum, its length about 4 times in length to vent; snout acutely pointed, a little longer than postocular part of head, with sharp canthus and vertical, slightly concave loreal region. Pileus $2\frac{1}{4}$ times as long as broad. Neck a little narrower than the head. Limbs slender, with very long digits; the hind limb reaches the shoulder in males, not beyond the axil in females; foot a little longer than the head. Tail 3 to $3\frac{1}{2}$ times as long as head and body.

Nostril between three shields; nasals forming a very short suture behind the rostral*; frontonasal longer than broad; prefrontals forming an extensive suture; frontal about $1\frac{2}{3}$ times as long as broad, as long as its distance from the end of the snout, narrower behind than in front; parietals about $1\frac{1}{2}$ times as long as broad, outer border convex; interparietal small, narrow, longer than the occipital; 3 or 4 supraoculars; if 4, the first small and granular, followed by a series of granules separating the supraoculars from the superciliaries, which are 5 in number. Rostral entering the nostril; a single postnasal; anterior loreal much smaller than second; 4 upper labials, rarely 5 or 3, anterior to the subocular, which is a little narrower beneath than above; temporal scales small, strongly keeled; an enlarged, keeled anterior upper temporal; a short and very narrow tympanic shield.

Pterygoid teeth present.

4 pairs of chin-shields,† the 3 anterior in contact in the middle; gular scales granular anteriorly, gradually enlarged, imbricate, and keeled towards the collar, 26 to 30 in a straight median line; collar-plates large, pointed, keeled, 10 in number.

* Rostral in contact with the frontonasal in one specimen examined by Van Denburgh.

† Van Denburgh notes one specimen as having 4 shields on one side and 5 on the other.

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Scales strongly keeled, those on the back larger, about 5 corresponding to 3 ventral plates, gradually merging into the laterals, of which 7 or 8 correspond to 3 ventral plates; 28 to 35 scales across the middle of the body. Ventral plates in 6 longitudinal series, the outer keeled, the others smooth or feebly keeled; 24 transverse series. Preanal plate large, smooth, bordered by a semicircle of small plates, or with two small plates on each side.

Scales on upper surface of limbs large, keeled, larger than dorsals, on forearm smooth and forming transverse plates. Usually 2, rarely 3, femoral pores on each side. 29 lamellar scales under the fourth toe.

Caudal scales strongly keeled, twice as large as largest dorsals, 16 in the fourth whorl.

Bluish slate above, probably greenish in life; a black line from the nostril through the eye to the centre of the ear-opening; a pale, probably yellowish, streak below this from the nostril through the lower eyelid to the lower border of the ear-opening; lower parts greenish or yellowish-white.

Measurements (in millimetres):

	♂*	♀
From end of snout to vent	64	56
„ „ „ fore limb	—	20
Length of head	16	14
Width of head	9	8
Depth of head	—	5·5
Fore limb	25	23
Hind limb	35	31
Foot	—	16
Tail	220	195

Habitat.—This species appears to be confined to Ishigaki Island, in the Southern Group of the Loo Choo or Riu Kiu Archipelago. The type is preserved in the U.S. National Museum. One of the co-types, received from that Institution, is now in the British Museum.

11. TACHYDROMUS.

Tachydromus,† Daud. Hist. Rept. iii, p. 251 (1802); Wagler, Syst. Amph. p. 157 (1830); Wiegm. Herp. Mex. p. 10 (1834); Dum. & Bibr. Erp. Gén. v, p. 155 (1839); Gray, Cat. Liz. p. 52 (1845); Günth. Rept. Brit. Ind. p. 69 (1864); Lataste, Ann. Mus. Genova (2) ii,

* After Stejneger.

† Originally misspelt *Takydromus*.

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1885, p. 125; Bouleng. Cat. Liz. iii, p. 3 (1887), and Mem. As. Soc. Beng v, 1917, p. 207.

Tachysaurus, Gray, t.c.

Head-shields normal. Nostril pierced between the nasal, one or two postnasals, and the first upper labial. Lower eyelid scaly. Collar more or less distinct or absent. Back with large plate-like subimbricate scales with strong keels forming continuous lines, sides with small juxtaposed or granular scales; ventral plates more or less imbricate, often pointed and keeled, the outer always keeled. Digits cylindrical or slightly compressed, with smooth or somewhat tubercular lamellæ inferiorly. Femoral pores reduced to one* to three. Tail long or extremely long, cylindrical.

Eastern Asia.

The parietal foramen is constantly present, and pterygoid teeth are absent or reduced to 2 to 5.

Judging from the type species, *T. sexlineatus*, this genus seems rather widely remote from *Lacerta*, but the question assumes a different aspect if we compare *T. amurensis*, which stands at the other end of the series, and which is most clearly related to *Lacerta* and especially to the Section *Zootoca*.

The term "inguinal pores" has been universally used for the one or two pores on each side of the preanal region, as is the rule in this genus, and no exception could be taken to this terminology were it not that when more than two pores are present, the series extends on to the thigh. As the single pore is part of the series known as femoral pores in the other Lacertidæ, it is more logical in view of securing uniformity in terminology to discard the term "inguinal," and to express the state of things in *Tachydromus* by saying that the series of femoral pores is reduced to one to three. In several forms of *Lacerta* and *Latastia*, when the number of femoral pores falls very low, the reduction takes place from the distal end of the thigh, thus leading to the condition in *Tachydromus*.† It is also noteworthy that in the African analogue of *Tachydromus*, *Poromera*, the series of femoral pores, though a long one, ends at some distance from the knee-joint.

* Inguinal pore.

† Specimens of *Lacerta vivipara* with only 5 femoral pores show this very clearly.

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Synopsis of the Species.

I. Head not more than $1\frac{3}{4}$ times as long as broad.

A. 4 supraoculars, first very small (rarely absent); dorsal plates in 5 to 8 longitudinal series, ventrals in 8 or 10.

1. 4 or 5 pairs of chin-shields (very rarely 3); ventral plates in 8 longitudinal series, feebly keeled or all except the outer smooth; 29 to 40 plates and scales round middle of body.

Dorsal plates in 7 or 8 longitudinal series; ventral plates in 22 to 28 transverse series; 3 femoral pores on each side; rostral in contact with frontonasal; tail $1\frac{3}{5}$ to $2\frac{1}{5}$ times length of head and body . . . . . *T. amurensis*, Peters, p. 129.

Dorsal plates in 5 to 7 longitudinal series; ventral plates in 22 to 25 transverse series; 2 (very rarely 3) femoral pores on each side; rostral nearly always in contact with frontonasal; tail 2 to $3\frac{1}{3}$ times length of head and body.

T. tachydromoides, Schleg., p. 132.

Dorsal plates in 8 longitudinal series; ventral plates in 27 to 29 transverse series; a single femoral pore on each side; nasals in contact behind rostral . . . *T. wolteri*, J. G. Fisch., p. 135.

2. 3 pairs of chin-shields (very rarely 4); ventral plates keeled, often strongly; 33 to 48 plates and scales round middle of body; tail 2 to $3\frac{3}{5}$ times length of head and body.

Dorsal plates in 5 to 7 (rarely 8) longitudinal series; ventral plates in 8 longitudinal and 24 to 30 (usually 26 to 28) transverse series; a single femoral pore on each side.

T. septentrionalis, Gthr., p. 137.

Dorsal plates in 7 or 8 longitudinal series; ventral plates in 8 or, more frequently, 10 longitudinal and 27 to 33 transverse series; 1 or 2 femoral pores on each side . *T. formosanus*, Blgr., p. 141.

B. 3 supraoculars, first large and in contact with the second loreal; dorsal plates in 4 longitudinal series, ventrals in 12.

Ventral plates in 22 to 25 transverse series; 26 to 28 plates and scales round middle of body; 3 pairs of chin-shields; 2 or 3 femoral pores on each side; tail a little over twice length of head and body . . . . . *T. khasiensis*, Blgr., p. 144.

II. Head at least nearly twice as long as broad; ventral plates strongly keeled.

A. Dorsal plates in 7 to 10 longitudinal series; ventral plates in 6 or 8 longitudinal and 26 to 31 transverse series; a single femoral pore on each side.

37 to 45 plates and scales round middle of body; 3 pairs of chin-shields, rarely 4; 3 or 4 supraoculars; tail $2\frac{1}{2}$ to $3\frac{1}{3}$ times length of head and body . . . *T. smaragdinus*, Blgr., p. 146.

28 to 32 plates and scales round middle of body; 4 or 5 pairs of chin-shields; 4 supraoculars; tail $3\frac{1}{2}$ to 4 times length of head and body . . . . . *T. sauteri*, Van Denb., p. 149.

B. Dorsal plates in 4 or 6 longitudinal series; ventrals in 10 or 12; 28 to 38 plates and scales round middle of body; 3 supraoculars, third

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rarely in contact with frontoparietal; 1 to 3 femoral pores on each side.

Dorsal plates in 4 (very rarely 6) longitudinal series; ventral plates in 21 to 28 transverse series; 3 (rarely 4) pairs of chin-shields; collar more or less distinct; head about twice as long as broad; tail 3 to 5 times length of head and body. *T. sexlineatus*, Daud., p. 151.

Dorsal plates in 6 longitudinal series; ventral plates in 30 transverse series; 4 pairs of chin-shields; no trace of a collar; head $2\frac{1}{3}$ times as long as broad; tail $2\frac{2}{5}$ times as long as head and body . . . . *T. haughtonianus*, Jerd., p. 155.

1. TACHYDROMUS AMURENSIS.

Tachydromus amurensis, Peters, Sitzb. Ges. Naturf. Fr. Berl. 1881, p. 71; Bouleng. Cat. Liz. iii, p. 6 (1887); Günth. Ann. & Mag. N. H. (6) i, 1888, p. 169; Bouleng. Ann. & Mag. N. H. (6) v, 1890, p. 137; Nikolsky, Herp. Ross. p. 92 (1905); Stejneger, Herp. Japan, p. 245, fig. (1907); Bouleng. Mem. As. Soc. Beng. v, 1917, p. 210, pl. xlvi, fig. 1.

Body feebly depressed. Head about $1\frac{1}{2}$ times as long as broad, its depth equal to the distance between the anterior corner of the eye and the tympanum, its length $3\frac{3}{4}$ to 4 times in length to vent in males, $4\frac{1}{2}$ to $4\frac{2}{3}$ times in females; snout obtuse, with obtuse canthus, as long as or slightly shorter than the postocular part of the head. Pileus $1\frac{3}{4}$ to 2 times as long as broad. Neck as broad as the head. Limbs short; the hind limb reaches the elbow or the axil in males, barely the wrist in females. Foot as long as the head or slightly longer. Tail $1\frac{3}{5}$ to a little over 2 times the length of head and body.

Nostril pierced between three shields. Rostral not touching the nostril, broadly in contact with the frontonasal, which is broader than long and as broad as the internarial space; prefrontals forming a median suture or separated by a small azygos shield*; frontal as long as its distance from the end of the snout, $1\frac{1}{4}$ to $1\frac{1}{2}$ times as long as broad, of nearly equal width throughout, or narrower behind than in front; parietals a little longer than broad (not more than $1\frac{1}{4}$), in contact with the upper postocular and with 3 or 4 temporals; interparietal a little longer than broad; occipital much shorter than the interparietal, its posterior border usually convex and projecting beyond the parietals. Four supraoculars, first very small, sometimes divided into two, or in contact with the frontal, second and third equal or second the larger, fourth small but larger than first, sometimes not

* In a male from Chaborowka.

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in contact with the frontoparietal*; 4, rarely 3 or 5, superciliaries, first longest, all in contact with the supraoculars, or with 2 or 3 granules between them. Nasal forming a suture with the anterior loreal † above the small postnasal; posterior loreal longer than the anterior; 4 upper labials ‡ anterior to the subocular, which is narrower beneath than above, sometimes very slightly. Temporal scales rather small, smooth or very feebly keeled; tympanic shield present; one or two enlarged upper temporals often present.

Mental much broader than long; 4, rarely 5,§ pairs of chin-shields, the two or three anterior meeting in the middle; 19 to 24 gular scales between the symphysis of the chin-shields and the median collar-plate, anterior granular and smooth, posterior enlarged, imbricate, smooth or faintly keeled and merging gradually into the collar, which is composed of 8 to 11 rounded or obtusely pointed plates, the median smooth, the outer feebly keeled. No gular fold.

Dorsal plates obtusely pointed or rounded behind, in 6 longitudinal series, with 1 or 2 series of smaller plates on the median line, or in 8 series in front and 6 behind; sides with one upper and 3 or 4 lower series of keeled scales and an intermediate granular area. Ventral plates in 8 longitudinal and 22 to 28 transverse series, the outer pointed and feebly keeled, the others smooth, broader than long and shaped as in *Lacerta vivipara*. 30 to 40 plates and scales round the middle of the body. Preanal plate large, smooth, entire (males), or longitudinally divided or semidivided (females), bordered by one semicircle of small plates.

Upper surface of limbs with rhombic keeled scales, much smaller than dorsals. 3 femoral pores on each side.‖ Subdigital lamellæ single or partly single and partly divided, 19 to 23 under the fourth toe.

Caudal scales strongly keeled, pointed or shortly mucronate, in somewhat longer and shorter whorls alternately, the fourth or fifth of which contains 16 to 20 scales. The scaling of the regenerated tail similar to that of *Lacerta vivipara*.

Brown or olive-grey above, uniform or with irregular dark brown spots, sides with a broad dark brown or black band, the upper border of which may show a series of indentations; a dark streak on the

* In a female from Chaborowka.

† Which is divided into two in a male from Chaborowka.

‡ 5 on one side in a male from Chaborowka.

§ 5 in a female from Chaborowka.

‖ A female from Chaborowka shows an ill-defined fourth pore on the right side.

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canthus rostralis; usually a more or less distinct light, dark-edged streak from the lower eyelid to the shoulder, passing through the lower part of the ear-opening, sometimes continued as a series of spots to the base of the hind limb. Lower parts yellowish or greenish white.

Measurements (in millimetres):

	1.	2.	3.	4.
From end of snout to vent . .	55	53	66	65
,, ,, ,, fore limb .	20	19	—	21
Length of head	12	12	13	14
Width of head	8	8	9	9
Depth of head	6	6	—	7
Fore limb	19	19	20	20
Hind limb	25	27	27	27
Foot	12	14	—	14
Tail	117	—	—	—

1. ♂, Chaborowka. 2. ♂, Seoul. 3. ♀, type, Kasakewicha. 4. ♀, Chaborowka.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Chaborowka, Ussuri . .	55	35	7	8	26	8	22	3	20
,, ,, ,, . .	54	35	7	8	25	10	22	3	21
♀ ,, ,, . .	65	40	8	8	28	9	24	3	32
,, ,, ,, . .	65	33	7	8	27	9	19	3	22
♂ Seoul, Corea . . .	53	35	7	8	24	10	21	3	23
♀ Corea	50	30	8	8	22	10	22	3	19

1. Length from snout to vent (in millimetres). 2. Scales and plates round middle of body. 3. Longitudinal series of dorsal plates and scales. 4. Longitudinal series of ventral plates. 5. Transverse series of ventral plates. 6. Plates in collar. 7. Gular scales in a straight median line. 8. Femoral pores on each side. 9. Lamellar scales under fourth toe.

Same explanation for the following tables.

In addition to the above, I have examined the type, a female from Kasakewicha, on the Amoor, preserved in the Berlin Museum.

Habitat.—South-Eastern Siberia, Manchuria, Corea.

T. amurensis is the most *Lacerta*-like species of the genus, and its agreement in many respects with *L. vivipara* is the more noteworthy for the fact that the latter is the only species of *Lacerta* which extends eastwards to the Pacific Ocean.* The agreement is not only in the shape of the head, body and limbs, and the comparatively short tail,

* The easternmost specimens of that species show, on an average, a lower number of femoral pores (5 to 11) than the western.

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but also in the shape and arrangement of the head-shields, especially those surrounding the nostril, and the occasional separation of the fourth supraocular from the frontoparietal.* and of the ventral shields. As the scaling of the back and the coloration may well be derived from the condition in *L. vivipara*, I have little doubt that the genus *Tachydromus* is to be regarded as directly descended from an oriental species of *Lacerta* connected with *L. vivipara*.

2. TACHYDROMUS TACHYDROMOIDES.

Lacerta tachydromoides, Schleg. Faun. Japon., Rept. p. 101, pl. i. figs. 5–7 (1838).

Tachydromus japonicus, Dum. & Bibr. Erp. Gén. v. p. 161 (1839); Günth. Rept. Brit. Ind. p. 69 (1864); Hilgend. Sitzb. Ges. Nat. Fr. Berl. 1880, p. 112.

Tachysaurus japonicus, Gray, Cat. Liz. p. 52 (1845).

Tachydromus tachydromoides, part., Bouleng. Cat. Liz. iii, p. 5 (1887).

Tachydromus tachydromoides, Günth. Ann. & Mag. N. H. (6) i, 1888, p. 169; Stejneger, Herp. Japan, p. 247. fig. (1907); Bouleng. Mem. As. Soc. Beng. v, 1917, p. 212.

Tachydromus holsti, Bouleng. Proc. Zool. Soc. 1894, p. 733, pl. xlix, fig. 1.

Body feebly depressed. Head 1½ to 1⅔ times as long as broad, its depth equal to the distance between the anterior corner of the eye and the tympanum, its length 3⅔ to 4 times in length to vent in males, 4 to 4½ times in females; snout pointed, with strong canthus and nearly vertical loreal region, as long as the postocular part of the head. Pileus 1⅘ to 2 times as long as broad. Neck as broad as the head. The hind limb reaches the axil, the shoulder, or the collar in males, the wrist, the elbow, or the axil in females; foot 1 to 1⅓ times as long as the head. Tail 2 to 3⅓ times the length of head and body (1⅔ times in the very young).

Nostril pierced between three shields. Rostral not entering the nostril, nearly always in contact with the frontonasal,† usually broadly; frontonasal as long as broad or slightly broader, as broad as the internarial space or a little broader; prefrontals forming a median

* A character which has become fixed in *T. sexlineatus*, at the other end of the series.

† Two exceptions, male from Koshiku and female from Koyosun, in which the nasals meet behind the rostral.

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suture*; frontal as long as its distance from the end of the snout, $1\frac{1}{2}$ to 2 times as long as broad, usually narrower behind than in front; parietals as long as broad or a little longer than broad (up to $1\frac{1}{3}$); interparietal $1\frac{1}{3}$ to 2 times as long as broad; occipital small, much shorter than the interparietal, often separated from it by the parietals meeting in the middle, sometimes reduced to a granule. Four supraoculars, first very small, rarely in contact with the frontal,† second and third equal or second the larger, fourth small but larger than the first; 4, rarely 5, superciliaries, first or first and second longest; a complete or, more often, incomplete series of granules between the supraoculars and the superciliaries, exceptionally reduced to 2 or 3 granules. Nasal forming a suture with the anterior loreal, above the small postnasal‡; anterior loreal shorter than the second; 4 upper labials, rarely 3,§ anterior to the subocular, which is narrower beneath than above. Temporal scales small, more or less distinctly keeled; two or three enlarged upper temporals, the first not in contact with the fourth supraocular; tympanic shield present.

Mental broader than long; 4 pairs of chin-shields,‖ the two or three anterior meeting in the middle; 18 to 25 gular scales between the symphysis of the chin-shields and the median collar-plate, anterior granular, smooth, posterior enlarged, imbricate, pointed, smooth or more frequently feebly keeled and merging gradually into the collar, which is composed of 9 to 12 pointed, smooth or keeled plates. No gular fold.

Dorsal plates obtusely pointed or rounded behind, in 4 or 6 longitudinal series, with 1 or 2 series of smaller plates on the median line, making 5 to 7 series altogether; sides with one upper and 3 to 6 lower series of keeled scales and an intermediate granular area. Ventral plates in 8 longitudinal and 22 to 25 transverse series, the outer pointed and keeled, the others also pointed or rounded or truncate behind, smooth or feebly keeled. 29 to 35 plates and scales round the middle of the body. Preanal plate large, smooth, very rarely longitudinally divided,¶ bordered by one semicircle of small plates.

Upper surface of limbs with rhombic keeled scales, much smaller

* Sometimes a small azygos shield separates them, according to Stejneger.

† Absent on one side in a female in the Lataste Collection.

‡ The postnasal is absent and the first loreal transversely divided into two in a female from Japan (Hilgendorf).

§ 3 on both sides in a female from Tsu Shima, on one side in a female from Takanori.

‖ One exception with 3 and one with 5 out of 66 specimens examined by Stejneger. 3 chin-shields on one side and 4 on the other in the type of *T. holsti*.

¶ Female from Nagasaki.

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than dorsals. 2, very rarely 3, femoral pores on each side. Subdigital lamellæ mostly divided, 20 to 26 under the fourth toe.

Caudal scales strongly keeled and shortly mucronate, in somewhat longer and shorter whorls alternately, the fourth or fifth of which contains 14 to 20 scales.

Brown or olive above, sometimes greenish on the anterior part of the back, uniform or with small irregularly scattered blackish spots; sometimes a light dorsolateral streak, starting from the superciliary edge; usually a dark brown or blackish lateral band* from behind the eye, sometimes with a few light spots, the upper edge often crenulated; a dark streak on the canthus rostralis; a more or less distinct light or white, often black-edged streak from the lower eyelid to the shoulder, through the lower part of the ear-opening, sometimes continued as a streak or series of spots to the base of the hind limb. Lower parts white, throat and breast sometimes greenish. Tail pale brown or reddish, with a dark lateral streak.

Measurements (in millimetres):

	1.	2.	3.	4.
From end of snout to vent	62	57	62	59
„ „ „ fore limb	22	21	22	21
Length of head	15	14	14	13
Width of head	9	9	9	8
Depth of head	8	7	7	7
Fore limb	23	20	20	19
Hind limb	33	32	28	28
Foot	17	17	15	15
Tail	180	160	150	150

1. ♂, Nagasaki. 2. ♂, Kochi Keu. 3. ♀, Japan. 4. ♀, Myianoshita.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♀ Kiusiu (type)	59	32	6	8	24	10	20	2	25
♂ Nagasaki	62	35	6	8	22	11	25	2	25
♀ „	59	33	6	8	24	10	24	2	26
♂ Takamori	46	34	5	8	22	10	20	2	20
♀ „	41	33	6	8	25	9	20	2	23
♂ Moji	50	32	6	8	24	12	23	2	24
♀ Onsen Mt. (type of *T. holsti*)	47	32	6	8	23	10	19	2	22

* This band is totally absent in the types (female and young) of *T. holsti*, as well as in a female from Nagasaki.

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	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Tsu Shima	60	34	6	8	24	11	24	2	23
„ „	53	34	6	8	23	10	22	2	23
♀ „	44	29	5	8	25	9	20	2	22
♂ Kochi Keu	57	29	5	8	22	11	21	2	23
„ „	52	35	5	8	23	11	24	3	26
♀ Tokyo	54	32	6	8	26	11	23	2	23
„ „	43	30	6	8	24	11	18	2	20
♂ Hakone L.	57	34	6	8	24	10	19	2	24
♀ Myianoshita	59	33	6	8	24	10	18	2	22
„ Koyosun	54	32	6	8	25	9	25	2	24
♂ Japan	54	35	7	8	22	9	24	2	24
♀ „	62	33	7	8	25	11	23	2	24
„ „	44	33	5	8	23	9	21	2	23

Habitat.—Japan, from Yezo to Kiusiu and Tsu Shima.

This species is very closely allied to the preceding, differing in the more pointed snout with stronger canthus, 5 to 7 longitudinal series of dorsal plates instead of 7 or 8, and nearly constantly 2 femoral pores instead of 3.

3. TACHYDROMUS WOLTERI.

Tachydromus wolteri, J. G. Fischer, Jahrb. Hamb. Wiss. Anst. ii, 1885, p. 82; Günth. Ann. & Mag. N. H. (6) i, 1888, p. 169; Stejneger, Herp. Japan, p. 247 (1907); Boulenger, Mem. As. Soc. Beng. v, 1917, p. 214, pl. xlvi, fig. 3.

Tachydromus tachydromoides, part., Boulenger, Cat. Liz. iii, p. 5 (1887).

Body feebly depressed. Head $1\frac{3}{5}$ to $1\frac{2}{3}$ times as long as broad, its depth equal to the distance between the anterior corner of the eye and the tympanum, its length 4 times in length to vent; snout pointed, with strong canthus and nearly vertical loreal region, as long as the postocular part of the head. Pileus $1\frac{4}{5}$ to 2 times as long as broad. Neck as broad as the head, or a little narrower. The hind limb reaches the elbow; foot as long as the head or slightly longer.

Nostril pierced between three shields. Rostral not entering the nostril; nasals forming a very short suture behind the rostral; frontonasal broader than long, as broad as the internarial space; a small shield between the prefrontals often present*; frontal as long as its distance from the end of the snout, $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as broad, of nearly equal width throughout; parietals $1\frac{1}{3}$ times as long as broad;

* Specimens from Seoul and Kiu Kiang.

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interparietals $1\frac{1}{3}$ to 2 times as long as broad; occipital small, much shorter than the interparietal. Four supraoculars, first very small, second and third equal, fourth small but larger than first, and rarely in contact with the frontoparietal*; 4 or 5 superciliaries, first largest, separated from the superciliaries by a complete series of granules. Nasal forming a suture with the anterior loreal, above the small postnasal; anterior loreal shorter than second; 3 to 5 upper labials† anterior to the subocular, which is narrower beneath than above. Temporal scales small, keeled; three enlarged upper temporals; tympanic shield present.

Mental broader than long; 4 pairs of chin-shields, the three anterior meeting in the middle; 24 to 26 gular scales between the symphysis of the chin-shields and the median collar-plate, anterior granular, smooth, posterior enlarged, imbricate, pointed and keeled, merging gradually into the collar, which is composed of 10 to 12 pointed, more or less distinctly keeled plates. No gular fold.

Dorsal plates rounded behind, in 8 longitudinal series (or 9 in front), those of the two median series smaller; sides with a more or less distinct upper and 3 or 4 lower series of keeled scales and an intermediate granular area. Ventral plates in 8 longitudinal and 27 to 29 transverse series, the outer pointed and keeled, the others rounded or truncate behind and smooth. 36 to 38 plates and scales round the middle of the body. Preanal plate large, smooth, bordered by one semicircle of small plates.

Upper surface of limbs with rhombic keeled scales, much smaller than dorsals. A single femoral pore on each side. Subdigital lamellæ mostly divided, 19 to 22 under the fourth toe.

Caudal scales strongly keeled and shortly mucronate, equal or in somewhat longer and shorter whorls alternately, the fourth or fifth of which contains 18 or 20 scales.

Olive above, with a more or less distinct light dorsolateral streak and a dark olive lateral band; a white, black-edged lateral streak from the loreal region through the lower part of the ear-opening to the base of the hind limb; a dark streak along each side of the tail. Lower parts yellowish or greenish white.

Measurements (in millimetres):

	1.	2.	3.
From end of snout to vent . . .	45	45	46
,, ,, ,, fore limb . .	16	17	16

* On one side in the specimen from Kiu Kiang.

† 4 on one side and 5 on the other in the type, 3 on one side and 4 on the other in the specimen from Kiu Kiang.

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	1.	2.	3.
Length of head	11	11	11
Width of head	6·5	7	7
Depth of head	6	6	6
Fore limb	15	16	17
Hind limb	20	20	23
Foot	11	11	12

1. ♂, type, Chemulpo. 2. ♂, Seoul. 3. ♂, Kiu Kiang.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Chemulpo (type)	45	36	8	8	27	10	26	1	19
,, Seoul	45	36	8	8	29	10	24	1	20
,, Kiu Kiang	46	38	8	8	29	12	24	1	22

A fourth specimen, without locality, but probably from N. China, has been referred to *T. wolteri* by Günther, but it differs in having 3 chin-shields on one side and 4 on the other, and the ventral shields all strongly keeled. The tail is $2\frac{1}{2}$ times as long as head and body. Green above, with the light lateral streak as in *T. wolteri*.

♂ N. China?	44	34	8	8	27	9	25	1	21

Habitat.—Corea and China (Kiu Kiang).

Closely allied to *T. tachydromoides*. Differs in having 8 longitudinal series of dorsal plates, 27 to 29 transverse series of ventral plates (instead of 22 to 24 in males), and a single femoral pore.

4. TACHYDROMUS SEPTENTRIONALIS.

Tachydromus septentrionalis, Günth. Rept. Brit. Ind. p. 70, pl. viii, fig. E.* (1864), and Ann. & Mag. N. H. (6) i, 1888, p. 166; Boettg. Ber. Senck. Ges. 1894, pp. 139 & 145; Bouleng. Proc. Zool. Soc. 1899, p. 161, fig.; Werner, Abh. Bayer. Ak. 2, xxii, 1903, p. 354; Van Denburgh, Proc. Calif. Ac. (4) iii, 1912, p. 242; Bouleng. Mem. As. Beng. v, 1917, p. 216.

Tachydromus tachydromoides, part., Bouleng. Cat. Liz. iii, p. 5 (1887).

Takydromus septentrionalis, part., Stejneger, Herp. Japan, p. 232 (1907).

* The male type specimen figured is represented with an intact tail, which is not the case, as may be seen from Günther's description. The tail has been restored by the artist. Such restorations were often resorted to in those days and have given rise to confusion, as in the case of *Chitra indica* in the same work.

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Body not or but slightly depressed. Head feebly convex or even quite flat above, $1\frac{1}{2}$ to $1\frac{3}{4}$ times as long as broad, its depth equal to the distance between the anterior corner or the centre of the eye and the tympanum, its length $3\frac{2}{3}$ to $4\frac{1}{5}$ times in length to vent in males, 4 to $4\frac{1}{2}$ times in females; snout pointed, with strong canthus and nearly vertical loreal region, as long as the postocular part of the head. Pileus 2 to $2\frac{1}{5}$ times as long as broad. Neck narrower than the head. The hind limb reaches the wrist, the elbow, or the axil in females, the axil or the shoulder in males; foot 1 to $1\frac{1}{3}$ times as long as head. Tail $2\frac{1}{3}$ to $3\frac{1}{3}$ times as long as head and body.

Nostril pierced between three (rarely four) shields. Rostral not entering the nostril, often narrowly in contact with the frontonasal,* which is as long as broad or slightly broader, as broad as or a little broader than internarial space; prefrontals forming a median suture; frontal as long as its distance from the end of the snout or a little shorter, $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as broad, usually narrower behind than in front; parietals $1\frac{1}{3}$ to $1\frac{2}{3}$ times as long as broad; interparietal $1\frac{1}{3}$ to 2 times as long as broad; occipital small, much shorter than the interparietal, rarely nearly as large, often separated from it by one or two small shields or by the parietals meeting in the middle. Four supraoculars, first very small, rarely broken up into 2 or 3 granules, or in contact with the frontal,† or absent,‡ second and third equal or second the longer, fourth small but larger than the first and rarely broken up into 2 or 3; 4 or 5 superciliaries, first or first and second longest and usually in contact with the supraoculars; a series of granules, rarely complete, between the supraoculars and the superciliaries. Nasal forming a suture with the anterior loreal above the postnasal,§ often forming a very short suture with its fellow behind the rostral; anterior loreal shorter than second, sometimes divided into two‖ and forming a triangle with the postnasal¶; usually 4 upper labials, sometimes 3 or 5,** anterior to the subocular, which

* In 15 specimens out of 39 examined by me; in 8 specimens out of 12 examined by Van Denburgh.

† In a male from Kiu Kiang.

‡ In a female from Kiu Kiang and in a young from Da-zeh Valley, Chi Kiang.

§ Unless its posterior part be severed to form a second postnasal, as in a female from Kiu Kiang.

‖ In 4 specimens from Kiu Kiang, in one from Da-zeh Valley, Chi Kiang, and in one from Kuatun.

¶ As in *L. agilis*.—In a male from Kiu Kiang the postnasal forms a suture with the second loreal, below the anterior.

** 3 on both sides in a female from Kiu Kiang, on one side in a female from

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is usually narrower beneath than above. Temporal scales small, more or less distinctly keeled; 1, 2 or 3 enlarged upper temporals, the first not in contact with the fourth supraocular; tympanic shield present, narrow and elongate.

Mental broader than long; 3 pairs of chin-shields,* the first or first and second meeting in the middle; 20 to 30 gular scales between the symphysis of the chin-shields and the median collar-plate, anterior granular and smooth, posterior enlarged, imbricate, pointed and keeled, and merging gradually into the collar, which is composed of 8 to 12 pointed, keeled plates. No gular fold.

Dorsal plates obtusely pointed or rounded behind, in 4 longitudinal series, with 1 or 2 series of smaller plates on the median line, and rarely† with an additional series of small plates between the two outer series, 5 to 8 altogether in the middle of the body; often 6, 7 or 8 in front and 4 or 5 behind; 2 to 4 series of keeled scales near the ventral plates, separated from the dorsals by a granular area. Ventral plates in 8 longitudinal and 24 to 30 (usually 26 to 28) transverse series, obtusely pointed, more or less strongly keeled, and shortly mucronate. 34 to 48 plates and scales round the middle of the body (usually 35 to 40). Preanal plate moderately large or rather small, smooth, rarely feebly bicarinate or longitudinally bisected,‡ often not broader than long, with smaller, usually keeled plates in front and on the sides.

Upper surface of limbs with rhombic keeled scales and granules. A single femoral pore on each side. Subdigital lamellæ partly single and partly divided, mostly divided, 23 to 29 under the fourth toe.

Caudal scales strongly keeled and shortly mucronate, the keels forming four very strong ridges on the upper surface of the basal part; the whorls nearly equal in length, the fourth or fifth containing 14 to 18 scales.

Olive, brown, or coppery red on the back, olive, green, or blue on the sides, usually with a light greenish, often black-edged dorsolateral streak, starting from the superciliary edge; a more or less distinct dark canthal streak and a dark band on the temple and side of neck,

Chusan, and in a young from Chi Kiang opposite Chusan; 5 on both sides in a male from Kuatun and in a female from Ningpo; on one side in two males from Kiu Kiang and in a female from Shanghai.

* 3 on one side and 4 on the other in two specimens from Kiu Kiang and in another from Kuatun. A similar example of asymmetry has been observed by Werner.

† Male and female from Kuatun, female from Shanghai.

‡ Female from Kiu Kiang.

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or continued along the body, sometimes with blue spots, edged below, but no farther than the shoulder, by a light streak starting from the lower eyelid. Lower parts yellow, often greenish on the sides.

Measurements (in millimetres):

	1.	2.	3.	4.
From end of snout to vent .	75	69	67	65
„ „ „ fore limb	26	27	24	25
Length of head . . .	18	17	16	16
Width of head	11	11	10	10
Depth of head	10	10	8	8
Fore limb	27	27	23	24
Hind limb	37	36	32	32
Foot	19	19	17	17
Tail	—	245	205	155

1. ♂, Ningpo, type. 2. ♂, Kuatun. 3. ♀, Kuatun. 4. ♀, Kiu Kiang.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Ningpo (type) . . .	75	36	6	8	28	10	25	1	25
♀ „ „ . . .	47	38	6	8	28	12	25	1	25
♂ „	60	38	7	8	27	10	29	1	27
♀ „	72	36	6	8	30	11	25	1	27
♂ Snowy Valley, Ningpo . .	71	35	7	8	27	11	24	1	27
♀ Shanghai	65	40	7	8	26	10	23	1	24
„ „	56	48	8	8	28	11	28	1	26
„ Chusan	68	36	6	8	27	10	23	1	26
„ Kiu Kiang	65	37	5	8	29	11	22	1	26
♂ Kiu Kiang Mts. . . .	66	35	5	8	27	10	25	1	24
„ „ . . .	65	37	6	8	27	9	20	1	25
„ „ . . .	65	40	6	8	26	11	25	1	25
„ „ . . .	65	35	5	8	27	12	28	1	25
„ „ . . .	62	38	5	8	26	11	27	1	25
„ „ . . .	60	39	5	8	24	10	22	1	24
„ „ . . .	56	39	6	8	26	11	28	1	26
„ „ . . .	51	40	6	8	26	10	25	1	26
♀ „ . . .	70	37	6	8	29	10	30	1	26
„ „ . .	70	36	5	8	28	11	24	1	24
„ „ . . .	69	34	6	8	28	9	23	1	23
„ „ . . .	65	34	6	8	28	8	22	1	27
„ „ . . .	65	41	6	8	28	12	26	1	25
„ „ . . .	58	35	5	8	27	11	20	1	23

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	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Kiu Kiang Mts.	57	38	5	8	27	11	26	1	23
„ Kuatun	69	35	5	8	26	11	22	1	26
„ „	69	38	6	8	28	12	24	1	25
„ „	68	39	6	8	27	10	25	1	29
♀ „	70	38	6	8	28	11	26	1	28
„ „	67	38	8	8	28	11	23	1	25
„ „	67	44	8	8	28	10	25	1	26

Habitat.—China along the Yangtse Kiang, north-west to the Province of Kansu, south-east to Fokien.

With an insufficient material before me, in 1887, I unfortunately united this species with the Japanese *T. tachydromoides*, from which it is perfectly distinct, differing chiefly in the number of chin-shields and of femoral pores, and in the constantly keeled ventral shields. These characters are not known to suffer any exceptions in the two species here compared, although larger series have been examined by me and others; and this is remarkable considering that the number of chin-shields certainly varies between 3 and 4 pairs in *T. smaragdinus* and *T. sexlineatus*, as observed by Van Denburgh, by Stoliczka, and by Annandale, whilst specimens with one or with two femoral pores occur in *T. formosanus* and *T. sexlineatus*.

5. TACHYDROMUS FORMOSANUS.

Tachydromus formosanus, Bouleng. Ann. & Mag. N. H. (6) xiv, 1894, p. 462; Stejneger, Herp. Japan, p. 235 (1907); Van Denburgh, Proc. Calif. Ac. (4) iii, 1912, p. 245; Bouleng. Mem. As. Soc. Beng. v, 1917, p. 219, pl. xlvi, fig. 4.

Takydromus septentrionalis, part., Stejneger, op. cit. p. 232.

Takydromus stejnegeri, Van Denburgh, t.c. p. 243.

Body not or but slightly depressed. Head feebly convex, $1\frac{3}{5}$ to $1\frac{3}{4}$ times as long as broad, its depth equal to the distance between the anterior corner or the centre of the eye and the tympanum, its length $3\frac{2}{3}$ to 4 times in length to vent in males, 4 to $4\frac{1}{4}$ times in females; snout pointed, with strong canthus and nearly vertical loreal region, as long as the postocular part of the head. Pileus 2 to $2\frac{1}{5}$ times as long as broad. Neck narrower than the head. The hind limb reaches the elbow in females, the axil or the shoulder in males; foot 1 to $1\frac{1}{5}$ times as long as head. Tail 2 to $3\frac{3}{5}$ times as long as head and body.

Nostril pierced between three shields. Rostral not entering the

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nostril, rarely in contact with the frontonasal,* which is as long as broad or a little broader, or longer than broad and in contact with the frontal;† prefrontals usually forming a median suture, or separated by an azygos shield;‡ frontal as long as its distance from the end of the snout, $1\frac{1}{2}$ to $1\frac{3}{4}$ times as long as broad, a little narrower behind than in front; parietals $1\frac{1}{4}$ to $1\frac{1}{2}$ times as long as broad; interparietal $1\frac{1}{3}$ to 2 times as long as broad; occipital small, much shorter than the interparietal, often separated from it by the parietals meeting in the middle. Four supraoculars, first very small, rarely absent,§ second and third equal or second the longer, fourth small but larger than first; 4 or 5 superciliaries, first or first and second longest, first in contact with the supraoculars,‖ followed by a series of granules, or series of granules complete. Nasal forming a suture with the anterior loreal above the postnasal, usually forming a short suture with its fellow behind the rostral; anterior loreal shorter than second; usually 4 upper labials, rarely 3,¶ anterior to the subocular, which is narrower beneath than above. Temporal scales small, obtusely keeled; a large anterior upper temporal, not in contact with the fourth supraocular, usually followed by one or two smaller shields; tympanic shield present, narrow and elongate.

3 pairs of chin-shields,** the first or first and second meeting in the middle; 20 to 29 gular scales between the symphysis of the chin-shields and the median collar-plate, anterior granular and smooth, posterior enlarged, imbricate, pointed and keeled, and merging gradually into the collar, which is composed of 10 to 12 pointed, keeled plates. No gular fold.

Dorsal plates obtusely pointed or rounded behind, in 6 longitudinal series, usually with 1 or 2 series of smaller plates on the median line, 6 to 8 altogether in the middle of the body; usually 8 or 10 in front and 6 or 7 behind; 2 or 3 series of keeled scales near the ventral plates, separated from the dorsals by a granular area. Ventral plates in 8 or, more frequently, in 10 longitudinal†† and 27 to 33 transverse

* In 27 specimens out of 283 examined by Van Denburgh (about 10 p. c.).

† In a male from Taipeh and in another from Punkiho.

‡ In a female from Punkiho.

§ 4 specimens present this exception, according to Van Denburgh.

‖ The rule in *T. stejnegeri* of Van Denburgh; in 9 specimens examined by him the series of granules between the supraoculars and the superciliaries is complete, as is the rule in the typical *T. formosanus*.

¶ 3 on each side in a male from Punkiho and in a female from Kanshirei.

** 4 shields on each side in two specimens examined by Van Denburgh.

†† Van Denburgh says the ventrals are in 8 rows, not reckoning as such the adjacent plates, which are often quite as long and must be regarded as ventrals.

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series, obtusely pointed, strongly keeled and shortly mucronate. 33 to 38 plates and scales round the middle of the body. Preanal plate moderately large, sometimes not broader than long, smooth or feebly bicarinate, rarely longitudinally bisected,* with smaller keeled plates in front and on the sides.

Upper surface of limbs with rhombic keeled scales and granules. One or two femoral pores on each side.† 24 to 29 lamellar scales under the fourth toe.

Caudal scales strongly keeled and shortly mucronate, the keels forming four very strong ridges on the upper surface of the basal part; the whorls nearly equal in length, the fourth or fifth containing 14 to 18 scales.

Brownish olive above, sometimes with darker spots which may form lines along the keels of the dorsal plates: often a yellowish or greenish white dorsolateral streak, starting from the superciliary edge; a dark streak from the nostril to the eye and a dark band on the temple and side of neck, often continued on the body, where it may be spotted with greenish white: a light streak from the lower eyelid, through the lower part of the ear-opening, to the shoulder, sometimes continued on the side of the body. A black streak on the hinder side of the thigh. Lower parts yellowish or greenish white.

Measurements (in millimetres):

	1.	2.	3.	4.	5.	6.
From end of snout to vent	41	45	44	50	45	52
„ „ „ fore limb	16	17	17	21	18	19
Length of head	10	12	10	13	11	12
Width of head	6	7	6	8	7	7
Depth of head	5	6	5	6	6	6
Fore limb	14	15	15	18	16	16
Hind limb	20	22	21	26	23	23
Foot	11	12	10	15	13	13
Tail	87	—	122	165	138	140

1. ♀, type, Taiwanfoo. 2. ♂, type, C. Formosa. 3. ♀, type, C. Formosa. 4. ♂, Taipeh, co-type of *T. stejnegeri*. 5. ♂, Punkiho. 6. ♀, Kanshirei.

* In one of the types from C. Formosa.—Two keeled plates in 3 specimens and two smooth plates in 1 of *T. stejnegeri*, two keeled plates in 4 specimens and two smooth plates in 2 of *T. formosanus* (out of 178 specimens) according to Van Denburgh.

† Van Denburgh found two pores on one side in one specimen referred by him to *T. stejnegeri*; the specimens with a single pore are (with 9 exceptions out of 284 specimens) regarded as typical *T. formosanus*.

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Particulars of Specimens Examined.

	1.	2.	3.	4	5.	6.	7.	8.	9.
♀ Taiwanfoo (type)	41	36	8	10	32	10	23	2	24
♂ Central Formosa (type)	45	35	7	8	29	12	22	2	25
♀ „ „	46	36	7	10	30	10	24	2	24
„ „ „	44	37	8	10	31	11	28	2	24
„ „ „	41	38	7	10	30	11	29	2	24
♂ Taipeh (co-type of *T. stejnegeri*)	50	34	6	8	28	11	26	1	29
„ Tainan, „	47	36	7	10	29	11	26	1	26
„ Punkiho	45	35	7	10	27	11	20	1	25
♀ „	32	34	7	10	32	12	25	1	25
„ Kanshirei*	52	33	8	10	30	10	23	1	24
„ Tamsui	44	37	8	8	30	12	25	1	24

Habitat.—Formosa and Pescadores Islands.

T. formosanus is very closely allied to *T. septentrionalis*, differing in the presence of 6 series of large plates along the back instead of 4, and by the frequent presence of 10 series of ventral plates instead of 8. The size is smaller, and the green colour is absent from the sides. I am convinced that Van Denburgh's proposal to separate this species into two, one with normally two femoral pores (*T. formosanus*), the other with one (*T. stejnegeri*), is untenable, the general agreement being too great and the supposed distinctive characters too slight and too inconstant to warrant specific distinction.

6. TACHYDROMUS KHASIENSIS.

Tachydromus sexlineatus, part., Boulenger, Cat. Liz. iii, p. 4 (1887), and Faun. Ind., Rept. p. 169 (1890); Günth. Ann. & Mag. N. H. (6) i, 1888, p. 167.

Tachydromus khasiensis, Boulenger, Mem. As. Soc. Beng. v. 1917, p. 221, pl. xlvii, fig. 1.

Body scarcely depressed. Head about $1\frac{3}{4}$ times as long as broad, its depth equal to the distance between the centre of the eye and the tympanum, its length 4 to $4\frac{1}{3}$ times in length to vent in males, $4\frac{1}{2}$ to 5 times in females; snout pointed, with sharp canthus and nearly vertical loreal region, as long as the postocular part of the head. Pileus twice as long as broad. Neck narrower than the head. Hind

* This specimen was received from the Museum of the California Academy under the name of *T. stejnegeri*. Yet in his descriptions Van Denburgh refers all the specimens from Kanshirei to *T. formosanus*, thus showing the uncertainty in distinguishing the two supposed species. The author rightly observes that unfortunately no one of the distinctive characters is absolutely constant in all specimens.

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limb reaching the wrist in females, the elbow in males; foot as long as the head. Tail a little over twice the length of head and body.

Nostril pierced between 3 to 5 shields. Rostral usually entering the nostril; upper head-shields rugose; frontonasal broader than long, not or but slightly broader than the internarial space; prefrontals forming an extensive suture; frontal as long as or shorter than its distance from the end of the snout, $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as broad, of subequal width throughout or a little narrower behind than in front; parietals $1\frac{1}{3}$ to $1\frac{2}{3}$ times as long as broad; interparietal $1\frac{1}{3}$ to 2 times as long as broad, much longer than the occipital, which may be broader. 3 supraoculars, first longer than second and usually in contact with the second loreal; 3 superciliaries, second longest; no granules between the supraoculars and the superciliaries. Nasal forming a suture with its fellow behind the rostral and with the anterior loreal above the postnasal, which may be very small or absent, in which case the anterior loreal borders the nostril; anterior loreal shorter than second; 3 or 4 upper labials* anterior to the subocular, which is not or but little narrower beneath than above. Temporal scales moderately large or rather small, hexagonal, keeled; one, two, or three large upper temporals, first sometimes in contact with the fourth supraocular; a long and narrow tympanic shield.

3 pairs of chin-shields, first and second in contact in the middle. 17 to 22 gular scales in the median line, anterior narrow, juxtaposed, smooth or faintly keeled, posterior increasing in size, imbricate, keeled, and merging gradually into the plates of the very distinct collar, which are pointed, keeled, and 10 or 11 in number.

Dorsal plates truncate or shortly mucronate behind, in 6 or 8 longitudinal series on the neck and 4 on the body. Ventral plates obtusely pointed or shortly mucronate, strongly keeled, in 12 longitudinal and 22 to 25 transverse series. Sides with one upper and one lower series of smaller keeled scales and an intermediate granular area. 26 to 28 plates and scales round the middle of the body. Preanal plate rather large, smooth or feebly bicarinate, bordered by a semicircle of small keeled plates.

Upper surface of limbs with rhombic keeled scales. 2 or 3 femoral pores on each side. Subdigital lamellæ single, 19 or 20 under the fourth toe.

Caudal scales strongly keeled and mucronate, the keels forming four very strong ridges on the upper surface of the basal part; the whorls nearly equal in length, the fourth or fifth containing 14 or 16 scales.

Olive above, with a yellowish or greenish white, usually black-edged

* 3 in two specimens, 4 in two, 3–4 in the two others.

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dorsolateral streak starting from the superciliary edge; a dark lateral band from the nostril, through the eye and involving the upper half of the ear-opening, to the tail, edged below by a light streak. Lower parts greenish white (in spirit). Tail reddish in the young.

Measurements (in millimetres):

	♂	♀
From end of snout to vent . . .	48	51
„ „ „ fore limb . .	19	17
Length of head	11	10·5
Width of head	6·5	6
Depth of head	5	5
Fore limb	16	15
Hind limb	20	21
Foot	11	11
Tail	—	108

Particulars of Type Specimens.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ . .	48	27	4	12	24	11	21	3–2	19
„ . .	48	26	4	12	24	10	19	3	?
„ . .	44	26	4	12	22	11	18	2	19
♀ . .	53	28	4	12	23	10	22	2	20
„ . .	51	28	4	12	25	10	21	2	19

Habitat.— Khasi hills, near Assam. Six specimens, from the collection of Dr. T. C. Jerdon, are preserved in the British Museum. Jerdon referred them to *T. sexlineatus* (Proc. As. Soc. Beng. 1870, p. 72).

This species may be regarded as intermediate between *T. tachydromoides* and *T. sexlineatus*, as observed by Günther in 1888: "Specimens of *T. sexlineatus* from Khassya, in the British Museum, have on the whole a somewhat shorter and less tapering snout, also shorter toes than the typical form, and approach in these respects *T. meridionalis*."

7. TACHYDROMUS SMARAGDINUS.

Tachydromus smaragdinus, Boulenger. Proc. Zool. Soc. 1887, p. 147, pl. xvii, fig. 2, and pl. xviii, fig. 1, and Cat. Liz. iii, p. 509 (1887); Günth. Ann. & Mag. N. H. (6) i, 1888, p. 168; Stejneger, Herp. Japan, p. 236, fig. (1907); Van Denburgh, Proc. Calif. Ac. (4) iii, 1912, p. 247; Boulenger. Mem. As. Soc. Beng. v, 1917, p. 223.

Body scarcely depressed. Head twice or nearly twice as long as broad, its depth equal to the distance between the centre of the eye

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and the tympanum, its length $3\frac{1}{2}$ to 4 times in length to vent in males, 4 to $4\frac{1}{4}$ times in females; snout acutely pointed, with sharp canthus and nearly vertical loreal region, a little longer than postocular part of head. Pileus $2\frac{1}{5}$ to $2\frac{1}{3}$ times as long as broad. Neck narrower than the head. Hind limb reaching the elbow or the axil in females, the axil or the shoulder in males; foot a little longer than the head. Tail $2\frac{1}{2}$ to $3\frac{1}{3}$ times as long as head and body.

Nostril pierced between 3 or 4 shields. Rostral sometimes entering the nostril; frontonasal as long as broad, or longer than broad; prefrontals forming a usually extensive suture; frontal as long as or a little shorter than its distance from the end of the snout, $1\frac{1}{2}$ to 2 times as long as broad, narrower behind than in front; parietals $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as broad; interparietal $1\frac{1}{3}$ to $1\frac{2}{3}$ times as long as broad, often separated from the very small occipital by one or two small shields or by the parietals meeting in the middle. 3 or 4 supraoculars,* first, if present, very small or reduced to a granule, second usually longer than third, fourth small and sometimes broken up into granules; 4 or 5 superciliaries, first and second elongate, first often in contact with the second supraocular; a complete or incomplete series of granules between the supraoculars and the superciliaries. Nasal usually forming a suture with its fellow behind the rostral,† and with the anterior loreal above the postnasal, which may be very small or absent‡; anterior loreal shorter than second; 4, rarely 5§ upper labials anterior to the subocular, which is usually not or but little narrower beneath than above. Temporal scales very small, granular, obtusely keeled, 10 to 15 on a line between the orbit and the tympanum; an enlarged anterior upper temporal, exceptionally‖ in contact with the fourth supraocular; a very narrow tympanic shield usually present.

3 pairs of chin-shields, first or first and second, exceptionally all three¶ in contact in the middle. 21 to 34 gular scales in the median line, anterior granular and faintly keeled, posterior increasing in size, imbricate, keeled, and merging gradually into the plates of the

* Of the 11 type specimens before me, 5 have 4 supraoculars, 5 have 3, and 1 has 4 on one side and 3 on the other. In the original description I noted 4 supraoculars in 19 cases out of 26.

† Van Denburgh found the rostral in contact with the frontonasal in about 69 p. c. of the specimens from Amaima, about 10 p. c. of those from Kikaiga, and about 5 p. c. of those from Okinawa.

‡ Absent in one specimen.

§ On one side only in 3 specimens.

‖ In one specimen.

¶ In one specimen. Van Denburgh found 4 pairs of chin-shields in 12 cases, and 3 on one side and 4 on the other in 16, out of 151 specimens.

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very distinct collar, which are pointed, keeled, and 10 to 13 in number.

Dorsal plates truncate, obtusely pointed, or rounded behind, in 8 or 10, rarely 7, longitudinal series on the body, equal or the median pair smaller and more irregular, often in 10 series anteriorly, and 7 posteriorly. Ventral plates pointed and mucronate, strongly keeled, in 6 or 8 longitudinal and 26 to 31 transverse series. A lateral series of large keeled scales (corresponding to the light lateral streak), separated from the ventral plates by 2 or 3 series of smaller scales, and from the dorsals by a broad granular area. 37 to 45 plates and scales round the middle of the body. Preanal plate rather large, entire and often bicarinate in males, usually longitudinally divided in females, with smaller keeled plates on the sides.

Upper surface of limbs with rhombic keeled scales. A single femoral pore on each side. Subdigital lamellæ mostly divided, 23 to 27 (exceptionally 31) under the fourth toe.

Caudal scales strongly keeled and shortly mucronate, in subequal whorls, the fourth containing 14 to 18 scales.

Bright green above; a pale yellow streak along each side, from the upper lip to the groin or to above the axil, passing below the tympanum*; males usually with a broad grey or bronzy lateral band above the yellow streak. Lower parts greenish yellow.

Measurements (in millimetres):

	♂	♀
From end of snout to vent . . .	50	55
„ „ „ fore limb . .	18	20
Length of head	12	13
Width of head	6·5	7
Depth of head	5	6
Fore limb	20	20
Hind limb	27	27
Foot	15	14
Tail	137	152

Particulars of Specimens Examined (the types).

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ . . .	56	42	8	8	29	10	21	1	24
„ . . .	50	39	8	6	26	13	22	1	27

* The specimens from Miyako examined by Van Denburgh show no trace of the light lateral streak, even on the head. In some of the specimens from the northern islands there is a light dorsolateral streak.

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	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ . . .	49	37	8	6	32	10	27	1	26
,, . . .	47	38	9	6	29	11	27	1	24
,, . . .	46	38	10	8	28	12	25	1	25
,, . . .	45	39	9	6	29	10	25	1	23
♀ . . .	55	40	10	6	29	12	27	1	24
,, . . .	54	45	9	6	28	12	34	1	26
,, . . .	54	40	9	6	29	12	29	1	31
,, . . .	49	39	8	6	31	12	27	1	26
,, . . .	44	37	7	6	30	13	29	1	27

Habitat.—Loo Choo Islands: Okinawa, Miyakoshima, Amami Oshima, and Kikaiga.

According to Van Denburgh the specimens from Miyakoshima have the ventrals in 8 longitudinal series and no light lateral streak, whilst those from the other islands have the ventrals in 6 series, rarely 8, and the light lateral streak is present.

This is a very sharply defined species, equally remote from *T. septentrionalis* and from *T. sexlineatus*, although occupying a somewhat intermediate position between the two as regards form and lepidosis.

8. TACHYDROMUS SAUTERI.

Takydromus sauteri, Van Denburgh, Proc. Calif. Ac. (4) iii, 1909, p. 50, and t.c. 1912, p. 251; Bouleng. Mem. As. Soc. Beng. v, 1917, p. 225, pl. xlvii, fig. 2.

Body scarcely depressed. Head twice or nearly twice as long as broad, its depth equal to the distance between the centre of the eye and the tympanum, its length 4 times in length to vent in males, $4\frac{1}{4}$ times in females; snout acutely pointed, with sharp canthus and nearly vertical loreal region, a little longer than postocular part of head. Pileus $2\frac{1}{4}$ to $2\frac{1}{3}$ times as long as broad. Neck narrower than the head. Hind limb reaching the elbow in females, the axil in males; foot a little longer than the head. Tail $3\frac{1}{2}$ to 4 times as long as head and body.

Nostril pierced between 4 or 5 shields. Rostral entering the nostril; frontonasal longer than broad; prefrontals forming an extensive suture; frontal a little shorter than its distance from the end of the snout, $1\frac{2}{3}$ times as long as broad, narrower behind than in front; parietals $1\frac{2}{3}$ times as long as broad; interparietal $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as broad, separated from the very small occipital by the

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parietals meeting in the middle. 4 supraoculars, first very small, second longer than third, fourth small but larger than first; 3 superciliaries, first and second elongate; a complete series of granules between the supraoculars and the superciliaries.

Nasal usually forming a suture with its fellow behind the rostral* and in contact with the anterior loreal above the postnasal, unless its posterior portion be detached to form a second postnasal†; anterior loreal as long as or shorter than second; 4 upper labials‡ anterior to the subocular, which is not or but little narrower beneath than above. Temporal scales very small, granular, obtusely keeled, 12 on a line between the orbit and the tympanum; a feebly enlarged anterior upper temporal; a very narrow tympanic shield.

4 pairs of chin-shields,§ the 3 anterior in contact in the middle. 22 to 24 gular scales in the median line, anterior granular and faintly keeled, posterior increasing in size, imbricate, keeled, and merging gradually into the plates of the very distinct collar, which are pointed, keeled, and 10 to 12 in number.

Dorsal plates obtusely pointed or rounded behind, in 7 or 8 longitudinal series on the body, the median smaller.‖ Ventral plates obtusely pointed and mucronate, very strongly keeled, in 6 longitudinal and 27 or 28 transverse series. 2 or 3 series of keeled scales on the side above the ventral plates, separated from the dorsals by a broad granular area. 28 to 32 plates and scales round the middle of the body. Preanal plate rather large,¶ bicarinate, with one or two smaller keeled plates on each side.

Upper surface of limbs with rhombic keeled scales. A single femoral pore on each side. Subdigital lamellæ single or partly single and partly paired, 24 under the fourth toe.

Caudal scales strongly keeled and shortly mucronate, in subequal whorls, the fourth containing 12 or 14 scales.

Bright green above; a white streak along each side, from the upper lip to the groin, passing below the tympanum and along the upper

* Rostral in contact with the frontonasal in 2 specimens out of 52, according to Van Denburgh.

† As in one of the two specimens here described.

‡ 5 in the type specimen described by Van Denburgh.

§ 5 in one specimen, 3–4 in another, according to Van Denburgh, whose description is based on 52 specimens.

‖ According to Van Denburgh, there are usually two median series of small plates anteriorly and one posteriorly, or 3–2–1, 2–1–0, one throughout, or 1–0. One specimen has only 1 row of large plates on each side, separated by about 7 rows of smaller, irregular plates.

¶ Exceptionally divided, according to Van Denburgh.

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half of the outer row of ventral plates, continued on the base of the tail. Limbs and tail often reddish. One of the specimens described by Van Denburgh has a dark red-brown band along the side from the eye, just above the white streak, to the tail, where it spreads over the upper surface. Lower parts white.

Measurements (in millimetres):

	♂	♀
From end of snout to vent	52	55
,, ,, ,, fore limb	19	19
Length of head	13	13
Width of head	7	6·5
Depth of head	6	5·5
Fore limb	22	20
Hind limb	26	26
Foot	15	14
Tail	200	195

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Cochun	52	28	7	6	27	12	22	1	24
♀ ,,	55	32	8	6	28	10	24	1	24

Habitat.—Formosa.

Closely allied to *T. smaragdinus*, but readily distinguished by the number of chin-shields, the lower number of plates and scales round the middle of the body, the longer tail, and the position of the light lateral streak.

9. TACHYDROMUS SEXLINEATUS.

Takydromus sexlineatus, Daud. Hist. Rept. iii, p. 256, pl. xxxix (1802); Brongn. Mém. Sav. Etr. Ac. Paris, i, 1806, p. 627, pl. ii, fig. 8; Dum. & Bibr. Erp. Gén. v, p. 158 (1839); Gray, Cat. Liz. p. 52 (1845); Günth. Rept. Brit. Ind. p. 69, pl. viii, fig. c (1864); Stoliczka, Journ. As. Soc. Beng. xii, 1872, p. 87; Günth. Nov. Zool. ii, 1895, p. 499; Laidlaw, Proc. Zool. Soc. 1901, p. 310; Annandale, Journ. As. Soc. Beng. (2) i, 1905, p. 140; Bouleng. Vert. Faun. Mal. Pen., Rept. p. 79 (1912); De Rooij, Rept. Ind.-Austral. Arch. i, p. 154, fig. (1915); Bouleng. Mem. As. Soc. Beng. v, 1917, p. 227.

Takydromus quadrilineatus, Daud. t.c. p. 252.

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Tachydromus ocellatus (Cuv.), Guér. Icon. R. An., Rept. pl. vi, fig. 3 (1829); Duvernoy, R. An., Rept. pl. xi (1836).

Tachydromus typus, Gray, Ann. N. H. i, 1838, p. 389.

Tachydromus sexlineatus, var. *æneofuscus*, Peters, Mon. Berl. Ac. 1863, p. 405.

Tachydromus meridionalis, Günth. Rept. Brit. Ind. p. 70, pl. viii, fig. D, and Ann. & Mag. N. H. (6) i, 1888, p. 167.

Tachydromus sexlineatus, part., Bouleng. Cat. Liz. iii, p. 4 (1887), and Faun. Ind., Rept. p. 169 (1890); Günth. Ann. & Mag. N. H. (6) i, 1888, p. 167.

Tachydromus sikkimensis, Günth. l.c.

Body not depressed. Head about twice as long as broad, its depth equal to the distance between the centre of the eye and the tympanum, its length $3\frac{2}{3}$ to $4\frac{1}{6}$ times in length to vent in males, 4 to $4\frac{1}{3}$ times in females; snout acutely pointed, with sharp canthus and nearly vertical loreal region, as long as postocular part of head. Pileus $2\frac{1}{3}$ to $2\frac{1}{2}$ times as long as broad. Neck narrower than the head. Hind limb reaching the elbow or the axil; foot as long as or a little longer than the head. Tail 3 to 5 times as long as head and body.

Nostril pierced between 3 or 4 shields. Rostral sometimes entering the nostril; upper head-shields smooth or feebly rugose; frontonasal as long as broad or longer than broad; prefrontals forming a median suture*; frontal as long as or shorter than its distance from the end of the snout, $1\frac{1}{2}$ to 2 times as long as broad, narrower behind than in front, often with a median ridge; parietals $1\frac{2}{3}$ to 2 times as long as broad; interparietal $1\frac{1}{2}$ to 2 times as long as broad; occipital usually shorter than the interparietal, sometimes nearly as long and a little broader, sometimes separated from it by one† or two‡ small shields, or by the parietals meeting in the middle.§ 3 supraoculars, first longer than second and in contact with the second loreal, third small and rarely‖ in contact with the frontoparietal; 3, very rarely 4, superciliaries, second longest; granules between the supraoculars and the superciliaries absent or reduced to one or two. Nasal usually forming a very short suture with its fellow behind the rostral,¶ and with the

* Separated by one or two small azygos shields in one specimen from Saigon and in another from Borneo.

† In one specimen from Borneo and in one from Saigon.

‡ In one specimen from Saigon.

§ Single specimens from S. China, Saigon, Tay Ninh, Rangoon and Java.

‖ One specimen from S. China, one from Saigon, and two from Great Natuna.

¶ In single specimens from Ma Son Mts., Jalor, Great Natuna and Borneo the rostral is narrowly in contact with the frontonasal.

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anterior loreal above the postnasal*; anterior loreal shorter than second; 4 upper labials, rarely 3† or 5‡ anterior to the subocular, which is narrower beneath than above. Temporal scales moderately large, rhombic or hexagonal, strongly keeled; one, two, or three large, keeled upper temporals, first very rarely§ in contact with the fourth supraocular; a long and narrow tympanic shield.

3 pairs of chin-shields,‖ first or first and second in contact in the middle. 15 to 24 gular scales in the median line, anterior narrow, juxtaposed, more or less keeled, then increasing in size, imbricate, pointed, strongly keeled, and merging gradually into the rather indistinct collar, which is composed of 8 to 12 plates.

Dorsal plates truncate and shortly mucronate behind, in 6 or 8 longitudinal series on the neck, 4 or 6 on the anterior part of the body, 4, very rarely 6, in the middle of the body, always 4 on the lumbar region.¶ Ventral plates obtusely pointed and shortly mucronate, strongly keeled, in 10 or 12 longitudinal and 21 to 28 transverse series. A rather irregular series of large keeled scales borders the ventrals and is separated from the dorsals by a granular area. 28 to 40 plates and scales round the middle of the body. Preanal plate rather large, usually more or less distinctly bicarinate, with smaller keeled plates on the sides.

Upper surface of limbs with rhombic keeled scales. 1 or 2, very rarely 3, femoral pores on each side.** Subdigital lamellæ single or partly divided, 18 to 26 under the fourth toe, usually 21 to 26.

Caudal scales strongly keeled and mucronate, the keels forming 4 very strong ridges on the upper surface of the basal part: the whorls nearly equal in length, the fourth or fifth containing 12 to 18 scales.

* In one specimen from Saigon the posterior part of the nasal is detached to form a second postnasal; the postnasal is absent on one side in a specimen from Matang.

† On both sides in a specimen from Great Natuna and in one from Java; on one side in one from Matang and in one from Java.

‡ On one side in 3 specimens from Saigon, in 2 from Tay Ninh, and in one from Great Natuna.

§ One specimen from Matang, one from Bangkok, two from Tay Ninh.

‖ There are exceptions. Out of 25 specimens from Sikkim, Stoliczka found 4 with 4 pairs and one with 3 shields on one side and 4 on the other. Annandale found 2 with 4 pairs out of 27 from the Eastern Himalayas, Assam, and Burma.

¶ There is sometimes irregularity on the two sides of the same specimens; thus in a female from Siam there are 2 plates on one side and 3 on the other in the two transverse series of dorsal plates just before the middle of the body.

** Stoliczka's statement that they vary from 3 to 6 in Sikkim specimens requires confirmation. The specimens on which he based his description are not in the Calcutta Museum, Dr. Annandale informs me.

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Greenish olive, bronze brown or reddish above, with metallic gloss; usually a white or whitish dorsolateral streak,* often edged with a black line or a broad black band, originating on the superciliary edge or just behind the parietal shield; the black band bordering the white streak produced on the side of the head; a white, sometimes black-edged streak from the loreal region to the shoulder, passing through the middle of the tympanum, sometimes continued on the side of the body; males often with a series of small white, black-edged ocelli above the lower lateral streak; hinder side of thigh often with a black streak. Limbs and tail often reddish. Lower parts yellowish or greenish white.

Measurements (in millimetres):

	1.	2.	3.	4.	5.	6.
From end of snout to vent . .	45	49	54	57	57	61
„ „ „ fore limb .	17	18	21	22	21	21
Length of head	11	12	13	14	14	14
Width of head	6	6	6·5	7	7	7
Depth of head	5·5	5·5	6	7	6	6
Fore limb	17	16	19	20	20	20
Hind limb	23	22	25	29	28	28
Foot	12	12	13	15	14	14
Tail	145	200	—	280	215	255

1. ♂, S. China (type of *T. meridionalis*). 2. ♀, S. China (ditto). 3. ♂, Jalor. 4. ♂, Great Natuna. 5. ♂, Java. 6. ♀, Matang.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Amoy, China	52	28	4	12	23	10	18	1	21
„ S. China (type of *T. meridionalis*) .	45	33	4	12	22	9	20	1	21
♀ „ „ .	53	32	4	12	24	10	19	1	18
„ „ „ .	49	31	4	12	24	11	22	1	21
„ „ „ .	41	30	4	12	25	10	17	1	19
♂ Man Son Mts., Tonkin . . .	55	32	4	12	25	9	20	1	22
„ Saigon, Cochinchina . . .	60	37	4	10	26	11	23	1	22
„ „ „ . . .	53	32	4	10	25	10	18	1	22
„ „ „ . . .	53	34	4	10	22	11	20	1	24
„ „ „ . . .	52	38	4	10	23	10	24	1	24
♀ „ „ . . .	61	33	4	10	26	10	21	1	24
„ „ „ . . .	58	34	4	10	27	10	23	1	25
„ „ „ . . .	58	34	4	10	27	8	20	1	22
„ „ „ **L.M.** . .	80	40	4	12	27	9	21	1	20
„ „ „ „ . .	58	38	4	12	27	9	24	1	26
„ „ „ „ . .	54	36	4	10	25	9	22	1	24

* Absent in the specimens from Rangoon.

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	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Tay Ninh, Cochinchina, **L.M.**	55	36	4	10	22	10	21	1	21
„ „ „ „	52	37	4	10	25	9	23	1	23
♀ „ „ „	60	30	4	10	24	10	19	1	22
„ „ „ „	58	36	4	10	25	10	21	1	22
„ „ „ „	58	36	4	10	24	9	20	1	23
♂ Sittong, Sikkim, **I.M.**	56	30	4	10	23	10	20	3	25
♀ Rangoon	60	34	4	10	24	11	23	2	26
„ „	50	34	4	10	24	10	18	2	25
„ „	46	34	4	10	25	9	22	2	23
♂ Bangkok, Siam	57	28	4	12	24	11	20	1	21
♀ „ „	51	33	4	10	23	10	23	1	22
„ Maprit, Siam	56	30	4	10	25	10	20	1	23
♂ Jalor, Malay Penins.	52	34	6	12	23	12	22	1	21
„ Great Natuna	57	30	4	10	25	11	17	2	22
„ „	57	32	4	10	25	10	19	2	25
„ „	55	32	4	12	24	11	20	1	19
„ „	55	29	4	10	24	10	18	1	20
„ „	54	32	4	12	23	11	17	1	23
♀ „ „	60	31	4	10	23	10	19	2	26
♂ Matang, Borneo	58	34	4	10	21	11	15	2	22
♀ „ „	61	29	4	10	22	11	18	2	22
♂ Borneo	57	32	4	10	23	10	20	2	24
„ „	55	30	4	10	25	9	19	2-1	25
♀ „	62	33	4	10	23	9	18	2	23
♂ Java	58	32	4	10	25	9	19	1	24
„ „	57	34	4	10	26	9	23	2	26
„ „	56	38	4	10	25	10	22	2	24
„ „	54	32	4	10	24	11	22	2	26
„ „	53	35	4	10	25	10	22	2	25
♀ „	49	34	4	10	28	9	23	2	26
♂ „ **L.M.**	52	37	4	10	24	10	20	1	24
„ „ „	50	38	4	10	26	10	23	1	25

Habitat.—From Southern China and the Eastern Himalayas through Indo-China, Assam, Burma, Siam, and the Malay Peninsula to the Malay Archipelago (Natuna Islands, Sumatra, Banka, Borneo, Java). Reaches an altitude of 1200 m. in Java.

10. TACHYDROMUS HAUGHTONIANUS.

Tachydromus haughtonianus, Jerdon, Proc. As. Soc. Beng. 1870, p. 72; Anders. Proc. Zool. Soc. 1871, p. 156; Stoliczka, Journ. As. Soc. Beng. xli, 1872, p. 88; Günth. Ann. & Mag. N. H. (6) i, 1888, p. 169; Bouleng. Mem. As. Soc. Beng. v, 1917, p. 230.

Tachydromus septentrionalis (non Günth.), Annandale, Proc. As. Soc. Beng. (2) i, 1905, p. 139.

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Body not depressed. Head $2\frac{1}{3}$ times as long as broad, its depth equal to the distance between the centre of the eye and the tympanum, its length $4\frac{1}{4}$ times in length to vent; snout acutely pointed, with sharp canthus and nearly vertical loreal region, as long as postocular part of head. Pileus $2\frac{1}{2}$ times as long as broad. Neck a little narrower than the head. Hind limb reaching the axil; foot as long as the head. Tail $2\frac{2}{5}$ times as long as head and body.

Nostril pierced between 4 shields. Rostral entering the nostril; upper head-shields smooth: frontonasal longer than broad; prefrontals forming a median suture; frontal shorter than its distance from the end of the snout, $1\frac{2}{3}$ times as long as broad, narrower behind than in front; parietals nearly twice as long as broad; interparietal $1\frac{1}{2}$ times as long as broad, occipital as broad as and shorter than the interparietal. 3 supraoculars, first longer than second, and in contact with the second loreal, third very small and narrowly separated from the frontoparietal; 5 superciliaries, second longest, all in contact with the supraoculars. Nasal forming a very short suture with its fellow behind the rostral and with the anterior loreal above the postnasal; anterior loreal shorter than second; 4 or 5 upper labials anterior to the subocular, which is as broad beneath as above. Temporal scales very small, hexagonal, keeled; two large upper temporals, keeled above, first not in contact with the fourth supraocular; a long and narrow tympanic shield.

4 pairs of chin-shields, the three anterior in contact in the middle. 26 gular scales in the median line, anterior narrow, juxtaposed, smooth, posterior increasing in size, imbricate, pointed, strongly keeled and passing gradually into the ventrals, there being no trace of a collar.

Dorsal plates truncate and shortly mucronate behind, in 6 longitudinal series on the neck and on the body. Ventral plates truncate and shortly mucronate, strongly keeled, in 10 longitudinal and 30 transverse series; no large scales bordering the ventrals. 32 plates and scales round the middle of the body. Preanal plate large, bicarinate, with smaller keeled plates on the sides.

Upper surface of limbs with rhombic keeled scales. A single femoral pore on each side.* Subdigital lamellæ single, 22 under the fourth toe.

Caudal scales strongly keeled and shortly mucronate, the keels forming six ridges on the upper surface of the basal part; the whorls nearly equal in length, the fourth containing 18 scales.

Reddish brown above, with a broad whitish streak on each side

* Günther's statement that there are two pores is due to a misunderstanding of Anderson's description, which mentions "one pair of femoral pores."

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proceeding from the superciliary edge; below this a dark brown lateral streak, proceeding from the nostril and passing through the eye and the tympanum; limbs reddish. Lower parts yellowish white.

Measurements (in millimetres):

From end of snout to vent	60
„ „ „ fore limb	23
Length of head	14
Width of head	6
Depth of head	5
Fore limb	25
Hind limb	30
Foot	16
Tail	145

This species is known from a single male specimen, from Goalpora in Assam, preserved in the Indian Museum, Calcutta, which has been kindly entrusted to me for description by Dr. Annandale.

It is very closely allied to *T. sexlineatus*, but differs in the still narrower head, the shorter tail, the number of series of dorsal plates, the smaller temporal scales, and the total absence of a collar.

12. PLATYPLACOPUS.

Platyplacopus, Bouleng. Mem. As. Soc. Beng. v, 1917, p. 231.

Head-shields normal. Nostril pierced between the nasal, one or two postnasals, and the first upper labial. Lower eyelid scaly. Collar distinct. Back with large, plate-like imbricate scales with strong keels forming continuous lines; sides with granular scales; ventral plates obtusely pointed, imbricate, smooth or feebly keeled. Digits slightly depressed, with large transversely elliptic smooth lamellæ inferiorly, the distal joint compressed, bent at an angle and covered with narrow lamellæ inferiorly. Femoral pores reduced to 3 to 5 on each side. Tail very long, cylindrical.

Southern China and Formosa.

Distinguished from *Tachydromus* by the structure of the digits, which reproduces the condition known in the Geckonid genus *Gymnodactylus*. In this respect it is more specialized than *Tachydromus*,

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whilst nearer *Lacerta* in having occasionally as many as 5 femoral pores.

1. PLATYPLACOPUS KUEHNEI.

Takydromus kuehnei, Van Denburgh, Proc. Calif. Ac. (4) iii, 1909, p. 50, and t.c. 1912, p. 252; T. Vogt, Sitzb. Ges. Nat. Fr. Berl. 1914, p. 99.

Platyplacopus kuehnei, Boulenger, t.c. p. 232, pl. xlvii, fig. 3.

Body feebly depressed. Head nearly twice as long as broad, flat above, its depth equal to the distance between the centre of the eye and the tympanum, its length $3\frac{1}{2}$ times (male) in length to vent; snout acutely pointed, as long as postocular part of head, with sharp canthus and vertical loreal region. Neck narrower than the head. Pileus slightly more than twice as long as broad. Hind limb reaching the axil (male); foot as long as the head. Tail more than twice as long as head and body.

Nostril pierced between (three or) four shields. Rostral not touching the nostril, rarely in contact with the frontonasal*; upper head-shields rather rough with faint striæ and pits; frontonasal a little longer than broad; prefrontals forming an extensive median suture; frontal with a median keel, a little shorter than its distance from the end of the snout, as long as the frontoparietals, $1\frac{2}{3}$ times as long as broad, a little narrower behind than in front; parietals $1\frac{2}{3}$ times as long as broad; interparietal $1\frac{1}{2}$ times as long as broad, separated from the smaller occipital by a short suture formed by the parietals. 4 supraoculars, first very small, second and third equal, fourth small; 4 superciliaries, first and second elongate, first in contact with the second supraocular and followed by a series of granules.† Two superposed postnasals‡; anterior loreal much shorter than second; 4 upper labials§ anterior to the subocular, which is a little narrower beneath than above; temporal scales very small, granular, keeled; an enlarged anterior upper temporal, not in contact with the fourth supraocular; a very narrow tympanic shield.

No pterygoid teeth.

4 pairs of chin-shields, the 3 anterior in contact in the middle. 28 gular scales on the median line, anterior granular, posterior

* According to Vogt.

† The series sometimes complete according to Van Denburgh.

‡ This is probably an individual abnormality in the specimen examined by me, as no mention is made by Van Denburgh of two postnasals.

§ Sometimes 5 according to Van Denburgh.

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increasing in size, imbricate, feebly keeled, and merging gradually into the plates of the collar, which are pointed, feebly keeled, and 11 in number.

Dorsal plates truncate behind, in 6* regular longitudinal series, with a vertebral series of small scales anteriorly. Ventral plates in 6 longitudinal rows, only the outer keeled; 28 transverse series. Sides minutely granulate. 42 plates and granules round the middle of the body. Preanal plate rather small, bordered by one semicircle of small smooth plates.

Upper surface of limbs with rhombic keeled scales. 4 femoral pores on each side.† 23 lamellar scales under the fourth toe.

Caudal scales strongly keeled and shortly mucronate, the whorls alternately a little longer and a little shorter, the fourth containing 18 scales.

Olive-brown above, the dorsolateral area (two rows of plates) lighter; two blackish streaks, formed of spots close together, along the middle of the back; a blackish lateral band from the nostril, through the eye and involving the upper half of the ear-opening, to the base of the tail, dotted with whitish on the body; reproduced tail reddish. Lower parts white.

The specimen selected as the type is thus described by Van Denburgh: "The colour above is greenish olive, becoming lighter yellowish olive on the limbs and tail. The sides are dark olive brown. A light line, edged above with dark brown, starts at the nostril, crosses the lower eyelid, the lower part of the ear-opening, and fades away above the axilla. The upper labials, dorsals, limbs and tail are dotted or spotted with dark brown. The lower surfaces are greenish white, tinged with orange on the tail."

Measurements (in millimetres):

	♂
From end of snout to vent	60
,, ,, ,, fore limb	24
Length of head	17
Width of head	9
Depth of head	7
Fore limb	23
Hind limb	32
Foot	17

Habitat.—This remarkable species was described from 13 specimens from Kanshirei and Taipeh, Formosa; one of these is now preserved

* 4 series in 1 specimen out of 13 according to Van Denburgh.

† Of the 13 types and co-types, 8 have 4 pores, 4 have 5, and 1 has 4–5. 3 or 4 in specimens from Canton according to Vogt.

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in the British Museum. It has since been reported from Southern China, near Canton.

Tachydromus chinensis, T. Vogt, Sitzb. Ges. Nat. Fr. Berl. 1914, p. 98, is said to be similar to *P. kuehnei*, but there are only three pairs of chin-shields and the ventral plates are obtusely keeled. 3 femoral pores on each side.—Northern parts of the Province Kuangtung S. China.

13. TROPIDOSAURA.

Tropidosaura, part., Fitzing. N. Class. Rept. p. 22 (1826); Dum. & Bibr. Erp. Gén. v, p. 163 (1839); Bedriaga, Abh. Senck. Ges. xiv, 1886, p. 417.

Tropidosaura, Gray, Cat. Liz. p. 35 (1845); Bouleng. Cat. Liz. iii. p. 50 (1887).

Head-shields normal. Nostril pierced between two or three nasals. Lower eyelid scaly. Collar absent; a short fold in front of the arm. Back covered with large hexagonal-lanceolate, strongly keeled and imbricate scales; ventral plates smooth, imbricate. Digits subcylindrical, with smooth or tubercular lamellæ inferiorly. Femoral pores. Tail long, cylindrical.

South Africa.

This genus stands in the same relation to *Nucras* as does *Psammodromus* to *Lacerta*.

1. TROPIDOSAURA MONTANA.

Lacerta (*Tropidosaurus*) *montana*, Gray, Griff. An. K. ix, Syn. p. 35 (1831).

Tropidosaura montana, Dum. & Bibr. t.c. p. 172; Gray, Cat. p. 35, Bedriaga, t.c. p. 428; Bouleng. t.c. p. 51.

Notopholis ? capensis, Gray, Cat. p. 34.

Tropidosaura burchelli, A. Smith, Ill. Zool. S. Afr., Rept., App. p. 7 (1849).

In habit similar to *Lacerta vivipara*. Body not depressed. Head small, 4 to 5 times in length to vent, $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as broad, feebly depressed, its depth equal to the distance between the anterior corner or the centre of the eye and the tympanum; snout short.

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obtuse, as long as the distance between the eye and the tympanum. Parietal foramen present. Pterygoid teeth present. Neck as broad as the head. Limbs short, just meeting when adpressed, or hind limb reaching the wrist; foot not or but little longer than the head; digits short. Tail $1\frac{1}{2}$ to $2\frac{1}{2}$ times the length of head and body.

Nostril pierced between two or three shields. Nasals forming a short suture, or rostral forming a narrow or broad suture with the frontonasal, which is broader than long and broader than the internarial space, and longer than the suture between the prefrontals; frontal as long as or a little longer than its distance from the end of the snout, $1\frac{3}{4}$ to $2\frac{1}{4}$ times as long as broad, as broad as or a little broader than the supraoculars, of equal width throughout; frontoparietals much shorter than the frontal; parietals $1\frac{1}{3}$ to $1\frac{2}{3}$ times as long as broad; interparietal $1\frac{1}{2}$ to 2 times as long as broad; occipital small, its posterior border convex and projecting beyond the parietals. Four supraoculars, first very small or reduced to a granule, second longer than third, fourth small but much larger than first; four supereiliaries, in contact with the supraoculars, second usually longest. Usually two superposed postnasals,* the lower exceptionally forming a suture with the rostral†; anterior loreal as long as or a little shorter than second; 4 upper labials anterior to the subocular, which is much narrower beneath than above and borders the mouth. Two large upper temporals, as in *Lacerta agilis*, first forming a broad suture with the fourth supraocular; a series of small shields between the upper temporals and the parietals exceptionally present‡; temple with moderate or rather large shields, the upper of which may be keeled; a large tympanic shield.

Gular scales large and imbricate, passing gradually into the ventrals; no gular fold.§

25 to 31 scales and plates round the body; dorsals and laterals much longer than broad, strongly keeled and mucronate; ventral plates in 6 longitudinal and 23 to 26 transverse series, those of the second row from the median line broader than the others. A large or rather large preanal plate, bordered by one or two semicircles of smaller plates.

Scales on upper surface of tibia rhombic, subimbricate, keeled. 4 to

* A single shield in one of the types of *T. burchelli* (male).

† In a male from Peri Bush.

‡ In another male from Peri Bush.

§ In one of the types of *T. burchelli*, female, there are only four pairs of large chin-shields instead of the usual five, the two anterior forming a median suture.

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8 femoral pores on each side, the series sometimes restricted to the basal half of the thigh. 16 to 22 lamellar scales under the fourth toe.

Caudal scales strongly keeled, upper similar to dorsals, lower obtusely pointed.

Brown or olive above, usually with a black vertebral streak and two whitish, black-edged streaks on each side, the upper starting from the superciliary edge, and continued, as a series of ocellar spots, along the tail, the lower from the upper lip, through the ear-opening, to the hind limb, reappearing behind the latter as a series of ocellar spots along the tail. Upper surface of head with small or rather large black spots; a black streak from the nostril to the eye; anterior upper labials spotted with black. Lower parts bluish or greenish white (in spirit), uniform or with large black spots.

Measurements (in millimetres):

	1.	2.	3.	4.	5.	6.
From end of snout to vent	66	53	45	58	52	49
,, ,, ,, fore limb	19	18	15	18	16	15
Length of head	13	11	10	11	11	10
Width of head	9	9	7	7	7	6
Depth of head	7·5	6	6	6	6	5
Fore limb	18	15	14	15	15	15
Hind limb	24	21	19	21	20	19
Foot	14	12	10	11	11	10
Tail	110	108	115	85	82	93

1. ♂, type of *T. burchelli*. 2. ♂, type. 3. ♂, Peri Bush, King William's Town. 4. ♀, type. 5. ♀, Cape Town. 6. ♀, type of *T. burchelli*.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.
♂ Cape of Good Hope (type), **P.M.**	53	26	23	8	19
♀ ,, ,, ,, ,, ,,	58	28	25	7–6	17
,, ,, ,, ,, **P.M.**	50	27	26	8	19
♂ Type of *T. burchelli*	66	27	24	7	19
,, ,, ,,	52	31	26	7	22
♀ ,, ,,	49	27	25	4	18
,, Cape Town	52	25	23	7	19
♂ Peri Bush, King William's Town	45	26	25	5	16
,, ,,	45	28	25	6	18

1. Length from snout to vent (in millimetres). 2. Scales round body (ventrals included). 3. Transverse series of ventral plates. 4. Femoral pores on each side. 5. Lamellæ under fourth toe.

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Habitat.—This species, once believed to be a native of Java, is only known from the southern parts of Cape Colony. The types are from the Eastern parts of the Colony, and the lizard is found close to Cape Town, on Table Mountain in particular.

14. PSAMMODROMUS.

Psammodromus, Fitzing. N. Class. Rept. p. 22 (1826); Wiegm. Herp. Mex. p. 10 (1834); Dum. & Bibr. Erp. Gén. v, p. 251 (1839); Gray, Cat. Liz. p. 38 (1845); Strauch, Mél. Biol. Ac. St. Pétersb. vi, 1867, p. 408; Lataste, Ann. Mus. Genova (2) ii, 1885, p. 125; Bouleng. Cat. Liz. iii, p. 46 (1887).

Tropidosaura, part., Fitzing. l.c.; Wiegm. l.c.; Dum. & Bibr. t.c. p. 163; Bedriaga, Abh. Senck. Ges. xiv, 1886, p. 417.

Algira, Cuv. Règne Anim., Ed. 2, ii, p. 31 (1829).

Aspistis (non Hoffm.), Wagler, Syst. Amph. p. 156 (1830).

Psammuros, Wagler, l.c.; Wiegm. l.c.

Notopholis, Wiegm. l.c.

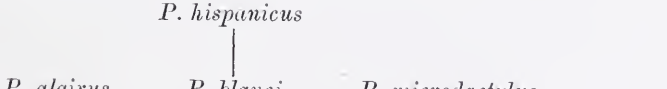
Algira, part., Gray, l.c.; Lataste, l.c.

Zerzoumia, Lataste, Le Naturaliste, 1880, p. 299; Bedriaga, t.c. p. 411.

Head-shields normal. Nostril pierced between two nasals, in contact with the first upper labial or separated from it by a narrow rim. Lower eyelid scaly. Collar absent or feebly marked; a short fold in front of the arm. Back covered with large, rhombic, strongly keeled and imbricate scales; ventral shields rounded or truncate behind, smooth. Digits slightly compressed, with smooth, tubercular, or keeled lamellæ inferiorly. Femoral pores. Tail long, cylindrical.

South-Western Europe and North-Western Africa.

The affinities of the four species grouped under *Psammodromus* may be expressed as follows:



P. blanci is on the whole, in my opinion, the most primitive species, probably derived from allies of *L. agilis* and *L. parva*. The three

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other species diverge from it. *P. hispanicus* differs almost exclusively in the spinulose scutellation of the toes—an adaptation to the sandy localities it frequents—and in the absence of vertically enlarged scales on the lower eyelid. *P. microdactylus* has developed a peculiar subdigital scutellation, very different from that of *P. hispanicus*, but yet approaching the pristidactyle condition, as first pointed out by Bedriaga, and the lower eyelid is as in *P. hispanicus*; both these species may have been evolved out of *P. blanci*. And lastly, *P. algirus* has acquired a peculiar ventral lepidosis, highly aberrant for the family Lacertidæ, but which must be regarded as derived from the normal condition; its subdigital scutellation is in an unstable condition, sometimes identical with that shown by *P. blanci*, sometimes nearly realizing the true pristidactyle type; in the presence of teeth on the pterygoid bones it is more primitive than the three other species of the genus, from any of which it cannot therefore be derived.

Synopsis of the Species.

I. Ventral plates of unequal width and moderately overlapping, the largest much broader than long; granular scales on sides of neck; no teeth on the palate; 9 to 15 femoral pores on each side.

Collar distinguishable; 27 to 32 scales round the body, ventral plates included; lower eyelid with vertically enlarged scales in the middle; subdigital lamellæ tubercular, 17 to 21 under the fourth toe . . . . . *P. blanci*, Lataste, p. 164.

Collar distinguishable; 30 to 42 scales round the body; lower eyelid without vertically enlarged scales; subdigital lamellæ sharply keeled, 16 to 23 under the fourth toe *P. hispanicus*, Fitz., p. 167.

No collar; 27 to 30 scales round the body; lower eyelid without vertically enlarged scales; subdigital lamellæ with strong, obtusely keeled tubercles, 15 to 17 under the fourth toe . . . . . *P. microdactylus*, Boettg., p. 173.

II. Ventral plates subequal, rounded or obtusely pointed behind, strongly overlapping; no collar; strongly imbricate, keeled scales on sides of neck; pterygoid teeth; 30 to 34 scales round the body; subdigital lamellæ smooth, tubercular, or feebly keeled, 19 to 24 under the fourth toe; 13 to 21 femoral pores on each side, usually 15 to 18 . . *P. algirus*, L., p. 175.

1. PSAMMODROMUS BLANCI.

Zerzoumia blanci, Lataste, Le Natural. 1880, p. 299; Bedriaga, Abh. Senck. Ges. xiv, 1886, p. 411.

Algira (Zerzumia) blanci, Boettg. Abh. Senck. Ges. xiii, 1883, p. 116.

Psammodromus blanci, Boulenq. Cat. Liz. iii, p. 48 (1887), and Tr. Zool. Soc. xiii, 1891, p. 127, pl. xiv, fig. 2; Werner, Verh. Zool.-

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bot. Ges. Wien, xlii, 1892, p. 354; Doumergue, Erp. Oran. p. 136, pl. ix, figs. 4, 5 (1901).

Body moderately depressed. Head small, feebly depressed, convex on the occiput, $1\frac{1}{2}$ to $1\frac{3}{5}$ times as long as broad, its depth equal to the distance between the anterior corner of the eye and the tympanum, its length 4 to $4\frac{3}{5}$ times in length to vent; snout obtusely pointed, with strong canthus and concave loreal region, a little shorter than postocular part of head; a sharp keel below the eye, on the freno-ocular and subocular shields. Neck as broad as or a little broader than the head. The hind limb reaches the wrist of the adpressed fore limb in females, the elbow, the axil, or the shoulder in males; foot $1\frac{1}{5}$ to $1\frac{1}{4}$ times length of head; digits feebly compressed, with tubercular lamellæ inferiorly (the tubercles in two series, except distally). Tail $1\frac{1}{2}$ to 2 times as long as head and body.

Pterygoid teeth absent.

Nostril separated from the postnasal and from the first upper labial by a narrow rim *; nasals forming a short or very short suture behind the rostral †; frontonasal broader than long; prefrontals forming an extensive median suture; frontal $1\frac{2}{3}$ to 2 times as long as broad, as long as its distance from the end of the snout, narrower behind than in front, lateral borders concave; parietals as long as broad or slightly longer, with convex outer border; interparietal $1\frac{1}{3}$ to 2 times as long as broad, sometimes very small and separated from the occipital by the parietals meeting on the median line or by a small supplementary shield ‡; occipital shorter and not or but slightly broader than the interparietal, sometimes minute. Four supraoculars; first very small, or reduced to a granule, § second longer than third, fourth small but usually larger than first, usually separated from the frontoparietal ‖; four superciliaries, very rarely five, second much longer than the others, all in contact with the supraoculars. Rostral narrowly separated from the nostril; a single, small postnasal; anterior loreal as long as or shorter than second ¶; four upper labials anterior to the subocular, which is much narrower beneath than above; one or two upper temporals **;

* As in *L. perspicillata*.

† Rostral in contact with the frontonasal in a male from Tunisia.

‡ Two females from Lambesa; one of these has the frontal divided into two by a horizontal suture.

§ Absent in one specimen examined by Bedriaga; also, on one side, in a female from Lambesa (Werner).

‖ In 10 specimens out of 12 examined. This peculiarity is also frequent in *Lacerta vivipara*.

¶ A single loreal in a male from Algiers.

** The anterior only exceptionally in contact with the fourth supraocular (male from Algiers, female from Lambesa).

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other temporal scales large and very irregular; a distinct tympanic shield. Lower eyelid with a central series of vertically elongate strongly enlarged scales.

Gular scales flat, enlarged and imbricate towards the collar, which is feebly or very feebly marked, except on the sides, and formed of 6 to 9 scales; gular fold more or less distinct, at least on the sides; 16 to 19 gular scales in a straight longitudinal line, including the collar. Scales on side of neck juxtaposed, more or less granular.

Scales on back acutely pointed or shortly mucronate, with strong straight keels, on sides gradually more obtuse and losing the keels, rather abruptly differentiated from the ventrals, which are broader than long, and hexagonal, those of the second series from the median line broadest, and form straight longitudinal and transverse series. 21 to 26 scales across the middle of the body. Ventral plates in 6 longitudinal and 24 to 30 transverse series (24 to 26 in males, 28 to 30 in females). Preanal plate moderate or rather large, bordered by one or two semicircles of small plates.

Scales on upper surface of tibia rhombic and keeled. 10 to 12 * femoral pores on each side, usually 10 or 11. 17 to 21 lamellar scales under the fourth toe, usually 18 to 20.

Caudal scales in nearly equal or alternately somewhat longer and shorter whorls, upper strongly keeled, pointed, and more or less distinctly mucronate; 20 or 22 scales in the fourth or fifth whorl behind the postanal granules.

Brown or pale olive above, the back uniform or lighter on the vertebral area, with or without small black spots in one or two series on each side; a dark vertebral streak sometimes present, all along the back, or confined to the nape; three greyish white or yellow streaks on each side, the upper (dorsolateral) starting from the outer border of the parietal, the second from behind the eye along the temple and above the tympanum to the neck, where it is lost before reaching the shoulder, the third from the upper lip, through the lower part of the tympanum, to the base of the thigh; a more or less distinct blackish streak from the nostril to the eye, where it bifurcates; an orange streak may be present along each side of the belly, which is white or pale yellow.

Measurements (in millimetres):

	1.	2.	3.	4.
From end of snout to vent .	41	36	40	45
,, ,, ,, fore limb	15	15	14	15
Length of head . . .	10	9	9	10

* Sometimes 9, according to Doumergue.

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	1.	2.	3.	4.
Width of head . . .	7	6	6·5	7
Depth of head . . .	5·5	5	5	6
Fore limb	14	14	12	14
Hind limb	20	20	18	19
Foot	11	11	11	12
Tail	64	65	61	72

1. ♂, La Senia, Oran. 2. ♂, type, Lambesa. 3. ♀, type, Lambesa. 4. ♀, Lambesa.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.
♂ Algiers (type)	40	24	26	18	11	18
„ Lambesa „	36	26	24	17	11–12	20
„ „ „	35	24	24	16	11–10	19
♀ „ „ . . .	48	24	29	17	11	19
„ „ „	40	24	28	17	10	19
„ „	45	26	30	17	11	19
♂ Tafrent	43	22	24	19	11	18
♀ Rorfa des Beni Salam . .	47	24	29	16	11	20
♂ La Senia, Oran	41	24	26	18	11	21
„ Oran	38	21	25	18	10	20
♀ „	47	25	29	18	10	19
„ „	39	26	30	17	11–10	19
♂ Tunisia, **P.M.**	39	22	24	16	11	17
♀ „ „	40	24	28	18	11	18

1. Length from snout to vent (in millimetres). 2. Number of scales across middle of body. 3. Transverse series of ventral plates. 4. Gular scales in a straight line from the symphysis of the chin-shields, including collar. 5. Femoral pores on each side (right and left if differing). 6. Lamellæ under fourth toe.

Habitat.—The whole of Northern Algeria, including the high plateaux; also neighbouring parts of Tunisia.

2. PSAMMODROMUS HISPANICUS.

Psammodromus hispanicus, Fitzing. N. Class. Rept. p. 52 (1826); Wiegm. Herp. Mex. p. 10 (1834); Gray, Cat. Liz. p. 38 (1845); Schreib. Herp. Eur. p. 397 (1875); Bouleng. Cat. Liz. iii, p. 47 (1887); Bedriaga, Amph. Rept. Portug. p. 54 (1889); Schreib. Herp. Eur., Ed. 2, p. 358 (1912).

Lacerta edwardsiana, Dugès, Ann. Sc. Nat. xvi, 1829, p. 386, pl. xiv.

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Aspistis edwardsiana, Wagl. Syst. Amph. p. 156 (1830).

Notopholis edwardsiana, Wiegm. l.c.

? *Algira penetata*, Gray, Ann. N. H. i, 1838, p. 283.

Psammodromus edwardsii, Dum. & Bibr. Erp. Gén. v, p. 253 (1839).

Psammodromus edwardsianus, Bonap. Ann. Sc. Nat. (2) xii, 1839, p. 62, pl. iv, fig. 2, and Icon. Faun. Ital., Amf. (1841).

Psammodromus cinereus, Bonap. ll. cc. fig. 1; Gray, t.c. p. 39; Lataste, Rev. Intern. Sc. iii, 1880, p. 177; Boscá, Bull. Soc. Zool. France, 1880, p. 274.

Lacerta cinerea, Schinz, Eur. Faun. ii, p. 28 (1840).

Body moderately depressed. Head small, feebly depressed, convex on the occiput, $1\frac{2}{5}$ to $1\frac{2}{3}$ times as long as broad, its depth equal to the distance between the anterior corner of the eye and the tympanum, its length $3\frac{1}{2}$ to $4\frac{1}{3}$ times in length to vent in males, 4 to $4\frac{4}{5}$ times in females; snout obtusely pointed, with strong canthus and concave loreal region, a little shorter than postocular part of head; a sharp keel below the eye, on the freno-ocular and subocular shields. Neck as broad as or a little broader than the head. The hind limb reaches the wrist or the elbow of the adpressed fore limb in females, the axil, the shoulder, the collar, or a little beyond in males; foot $1\frac{1}{5}$ to $1\frac{1}{2}$ times length of head; digits feebly depressed, with sharply keeled, spinose lamellæ inferiorly, in two series except distally. Tail a little less than $1\frac{1}{2}$ to a little more than 2 times as long as head and body.

Pterygoid teeth absent.

Nostril separated from the postnasal and from the first upper labial by a narrow rim; nasals forming a short or very short suture behind the rostral; frontonasal broader than long; prefrontals forming an extensive suture, unless separated by one or two azygos shields;* frontal $1\frac{1}{2}$ to 2 times as long as broad, as long as its distance from the rostral or the end of the snout, narrower behind than in front, lateral borders more or less concave; parietals as long as broad or a little longer, outer border convex; interparietal $1\frac{1}{3}$ to 2 times as long as broad; occipital as large as or a little smaller than the interparietal, often shorter and broader.† Four supraoculars, first very small or reduced to a granule,‡ second longer than third, fourth small but larger than first§; four supereiliaries, rarely five, second much longer

* 3 males from Marseilles, single females from Montpellier and Lisbon; united in a female from Madrid.

† Absent in a female from Seville.

‡ Absent in two females from Seville.

§ In 7 specimens from Seville the fourth supraocular is separated from the frontoparietal.

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than the others, all in contact with the supraoculars. Rostral narrowly separated from the nostril; a single postnasal; anterior loreal shorter than second*; four, rarely five or three† upper labials anterior to the subocular, which is much narrower beneath than above, and the lower portion of which is often detached as one or two additional labials separating it from the oral border; one, two or three enlarged upper temporals often present‡; the other temporal scales irregular and unequal in size, usually with a distinct tympanic shield. Lower eyelid without vertically enlarged scales in the middle.

Gular scales large and flat, larger and more imbricate towards the collar, which is rather feebly or very feebly marked, except on the sides, and formed of 6 to 10 rounded scales; gular fold usually more or less distinct, at least on the sides; 15 to 22 gular scales in a straight median line, including the collar.

Scales on back acutely pointed or shortly mucronate, with strong straight keels, on sides gradually more obtuse and losing the keels, gradually passing into the ventrals, which are broader than long, and hexagonal, those of the second series from the median line broadest, and form straight longitudinal and transverse series. 24 to 36 scales across the middle of the body. Ventral plates in 6 longitudinal and 24 to 31 transverse series (24 to 30 in males, 27 to 31 in females). Preanal plate moderate or rather large, bordered by one or two semicircles of small plates.

Scales on upper surface of tibia rhombic and keeled. 9 to 14 femoral pores on each side,§ usually 10 to 12. 16 to 23 lamellar scales under the fourth toe.

Caudal scales in nearly equal or alternately somewhat longer and shorter whorls, upper strongly keeled, pointed, and more or less distinctly mucronate; 18 to 24 scales in the fourth or fifth whorl behind the postanal granules.

Grey, olive, coppery brown or yellowish brown above, usually with white or yellowish and black markings in the form of spots, streaks, or ocelli. Primarily, there are four white streaks on the back and three on each side; the outer dorsal, or dorsolateral, starting from the outer border of the parietal shield, and the middle lateral, starting from the upper lip, are the most constant; the upper lateral, starting

* Absent in a female from Marseilles.

† 5 on one side in two males from Seville, 3 on both sides in a male and in a female from the same locality.

‡ Anterior upper temporal in contact with the fourth supraocular in a male from Seville, in a male and in a female from Lisbon, in a female from Algarve.

§ Up to 15 according to Dugès.

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from behind the eye and passing above the ear-opening, is lost on the side of the neck, sometimes reappearing as a small blue ocellus above the shoulder; the lower lateral, starting from the lower lip, is often absent, or replaced by a series of small blue spots on the sides of the belly. Some specimens are thus striated, with very small black spots bordering the light streaks; in others the streaks break up into longitudinal series of spots and the black spots predominate, forming longitudinal series, of which the vertebral is very conspicuous and exceptionally confluent into a stripe, or the black spots may run together to form cross-bars interrupted by the remains of the light streaks. Finally, specimens occur which lack the markings altogether, being uniform grey, brown, or olive above, and as they thus differ very strikingly from the spotted or streaked individuals among which they live, they have been regarded by some authors as a distinct species (*P. cinereus*, Bp.). Except in the uniformly coloured specimens, a black line extends from the nostril to the eye, where it bifurcates, the upper branch following the upper eyelid, the lower the subocular shield. Limbs with round, white or yellowish spots. Lower parts greyish white, or reddish.

I have seriously considered the advisability of dividing this species into two forms, viz. the one from Central and Southern Spain and Portugal, to which the name *P. hispaniens* probably applies, and the *P. edwardsianus* (including *P. cinereus*) from France and Eastern Spain. In the former the subocular nearly always borders the lip, the scales round the body (ventrals included) number 30 to 34, there are 9 to 12 femoral pores, and the foot is not more than one-fourth longer than the head, with 16 to 20 lamellæ under the fourth toe. In the latter the subocular is usually separated from the oral border, the scales are smaller, 34 to 42 round the body, the femoral pores are usually more numerous, 10 to 15, and the foot is longer ($1\frac{1}{3}$ to $1\frac{1}{2}$ times as long as the head), with more numerous lamellæ under the fourth toe (19 to 23). However, these characters do not alway go hand in hand, as shown by the male from Seville (Gadow) and the female from Algarve tabulated below; and the two specimens from the Dehesa de Albufera, near Valencia, would be referable to *P. hispaniens* and *P. edwardsianus* respectively. I therefore do not deem it advisable, for the present at least, to separate *P. edwardsianus* as a variety or subspecies, although I have felt tempted to do so; the status of the two forms is about the same as in the vars. *pater* and *tangitana* of *L. ocellata*. The typical *P. hispaniens* is probably the original form, agreeing more closely with *P. blanci*.

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Measurements (in millimetres):

	1.	2.	3.	4.	5.	6.	7.	8.	9.
From end of snout to vent	47	50	44	38	42	38	48	48	45
„ „ „ fore limb	17	17	17	14	17	15	16	16	16
Length of head	11	11	11	9	12	10	10	11	10
Width of head	8	7	7	6	8	7	6·5	8	7
Depth of head	6	6	6	5	6·5	5	6	6	6
Fore limb	16	15	15	13	15	14	14	15	14
Hind limb	26	24	25	22	26	23	23	24	23
Foot	15	15	15	13	16	14	13	13	12
Tail	86	81	—	67	85	80	—	77	66

1. ♂, Montpellier. 2. ♀, Montpellier. 3. ♂, Marseilles (*P. cinereus*). 4. ♀, Marseilles (*P. cinereus*). 5. ♂, Valencia, Spain (*P. cinereus*). 6. ♂, Seville. 7. ♀, Algarve. 8. ♂, Lisbon. 9. ♀, Lisbon.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.
France:							
♂ Marseilles	43	32	26	18	12–13	21	—
„ „	43	28	26	19	13–12	20	—
„ „	41	28	26	19	12–13	21	—
„ „	39	31	25	19	12–13	21	—
„ „	37	29	27	21	11	21	—
♀ „	43	30	28	20	11	23	—
„ „	42	29	28	19	13	22	—
„ „	41	28	28	19	12	21	—
„ „	41	30	27	19	11	20	—
„ „	40	32	29	21	11	21	—
„ „	40	31	30	17	12	19	—
„ „	36	29	27	20	12–13	20	—
„ „	35	30	29	19	11–12	21	—
♂ „ (var. *cinereus*)	44	32	28	20	12–11	22	—
♀ „ „	38	30	29	18	11–12	21	—
♂ La Crau (Bouches-du-Rhône)	42	30	27	20	11	20	—
♀ „ „ (var. *cinereus*)	43	28	31	18	12	21	—
♂ Montpellier	47	36	28	22	12	22	+
„ „	47	33	28	19	12	21	—
♀ „	50	29	30	19	12	20	—
„ „	41	28	29	18	10	20	—
„ Palavas, near Montpellier	42	38	30	19	11	20	—
Spain:							
♂ Madrid	42	25	26	17	10	18	+

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		1.	2.	3.	4.	5.	6.	7.
♀	Madrid	47	27	30	20	11	16	+
♂	Ciudad Real	42	26	26	16	12	20	+
♀	„	47	25	28	17	10–9	19	+
♂	Albufera, near Valencia	46	33	24	18	13	21	—
♀	„ „	38	26	30	21	11	20	+
♂	Valencia	42	26	25	15	11–12	21	+
♀	„	46	31	30	20	12	22	—
„	„	45	31	30	20	12	21	—
♂	„ (var. *cinereus*)	42	30	27	21	13–14	22	—
„	„ „	39	30	27	19	13–14	23	—
„	„ „	31	31	26	18	13	21	—
♀	„ „	40	31	28	20	11–12	21	—
„	„ „	34	29	28	19	11–12	22	—
♂	Seville	46	27	27	18	12	19	—
„	„	42	26	28	18	10	19	+
„	„	41	25	25	18	11–12	18	+
„	„	40	25	30	18	9	18	+
„	„	38	24	25	16	11	21	+
„	„	36	26	29	18	12	19	+
♀	„	50	24	27	17	10	18	+
„	„	44	27	30	20	11	18	+
„	„	43	24	31	17	9	20	+
„	„	43	26	28	18	12	19	+
„	„	41	26	30	17	12	18	+
„	„	39	25	29	20	9–10	16	+
Portugal:								
♀	Lisbon	48	28	29	21	11	20	+
„	„	45	26	30	20	10–11	20	+
„	Algarve	48	24	31	19	10	21	+

Colums 1–6 as in the preceding ; column 7 refers to the subocular, bordering (+) or not (−) the mouth.

Habitat.—Mediterranean coast of France and Spanish Peninsula. Schreiber, in the second edition of his Herpetologie Europæa, p. 361, regards *P. hispanicus* as almost exclusively restricted to the sea-coast, only exceptionally occurring far inland. Had he referred to Boscá's paper in Bull. Soc. Zool. France, 1880, p. 273, he would have found that the species occurs over nearly the whole of the Spanish Peninsula, in suitable arid, sandy regions, "très abondant dans le centre et le midi."

This species has been recorded from Siliqua, Sardinia, by Giglioli, Arch. f. Nat. 1879, p. 97. Having examined the single specimen

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preserved in the Florence Museum, I find it belongs to *Ophiops elegans*, a lizard which is not likely to occur in Sardinia any more than *Psammodromus hispanicus*.

3. PSAMMODROMUS MICRODACTYLUS.

Algira (*Zerzumia*) *microdactyla*, Boettg. Zool. Anz. 1881, p. 571, and Abh. Senck. Ges. xiii, 1883, p. 111, pl. i, fig. 2.

Psammodromus microdactylus, Boulenq. Cat. Liz. iii, p. 49 (1887), Ann. & Mag. N.H. (6) iii, 1889, p. 304, and Tr. Zool. Soc. xiii, 1891, p. 127; Doumergue, Erp. Oran. p. 139, pl. ix, figs. 6, 7 (1901).

Body moderately depressed. Head rather small, feebly depressed, convex on the occiput, $1\frac{2}{3}$ to $1\frac{1}{2}$ times as long as broad, its depth equal to the distance between the anterior corner of the eye and the tympanum, its length $3\frac{3}{4}$ to about 4 times in length to vent; snout obtusely pointed, with strong canthus and concave loreal region, as long as postocular part of head; a sharp keel below the eye, on the freno-ocular and subocular shields. The hind limb reaches the elbow of the adpressed fore limb or the axil in females, the axil in males; foot a little longer than the head; digits feebly compressed, with very prominent, obtusely keeled tubercular lamellæ inferiorly (the tubercles in two series except distally). Tail $1\frac{1}{2}$ to $1\frac{3}{4}$ times as long as head and body.

Pterygoid teeth absent.

Nostril separated from the postnasal and from the first upper labial by a narrow rim; nasals forming a short or very short suture behind the rostral; frontonasal broader than long; prefrontals forming an extensive suture; frontal $1\frac{1}{2}$ to 2 times as long as broad, as long as its distance from the end of the snout, narrower behind than in front, lateral borders more or less concave; parietals as long as broad or slightly longer, with convex outer border; interparietal $1\frac{1}{2}$ to 2 times as long as broad, occipital shorter but often a little broader.* Four supraoculars, first very small, second as long as third or a little longer, fourth larger than first and often† separated from the fronto-parietal; four superciliaries, second much longer than the others, all in contact with the supraoculars. Rostral narrowly separated from the nostril; a single postnasal; anterior loreal as long as or a little shorter than second; four upper labials anterior to the subocular,‡ which is much narrower beneath than above; three upper temporals, anterior usually in contact with the fourth supraocular, separated from 3 or 4

* Absent in one of the type specimens, according to Boettger.

† In 7 specimens out of 12 examined.

‡ 3 on one side in a female from Tangier.

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large lower temporals by one or two series of small shields, which may be feebly keeled; a large tympanic shield. No vertically enlarged scales on the lower eyelid.

Gular scales flat, enlarged and imbricate posteriorly, 15 to 19 in a straight longitudinal line in the middle; gular fold absent or slightly indicated; collar reduced to a fold on each side, in front of the shoulder. Scales on side of neck juxtaposed, more or less granular.

Scales on back acutely pointed or shortly mucronate, with strong straight keels, on sides gradually more obtuse and losing the keels towards the ventrals, which are broader than long and hexagonal, those of the second series from the median line broadest. 21 to 24 scales across the middle of the body. Ventral plates in 6 longitudinal and 23 to 29 transverse series (23 to 26 in males, 26 to 29 in females). Preanal plate rather large, bordered by one semicircle of small plates.

Scales on upper surface of tibia rhombic or hexagonal and keeled. 10 to 13 femoral pores on each side. 15 to 17 lamellar scales under the fourth toe.

Caudal scales in nearly equal or alternately somewhat longer and shorter whorls, strongly keeled, pointed, the keels forming very strong longitudinal ridges above; 16 or 18 scales in the fourth or fifth whorl.

Greyish olive or pea-green above, with an ill-defined brown or reddish lateral band with or without small light black-edged ocellar spots; sometimes a rather feebly marked light dorsolateral streak, which may be broken up into spots; a light streak from the upper lip to the shoulder or to the groin, and another from behind the eye to above the tympanum or to the side of the neck; black spots on the back, irregularly scattered or forming two to five longitudinal series. A more or less distinct black line from the nostril to the eye, where it bifurcates. Hind limbs with light spots. Lower parts white, outer row of ventrals lemon-yellow, throat of males bluish.

Measurements (in millimetres):

	1.	2.	3.	4.
From end of snout to vent . .	44	43	41	45
,, ,, ,, fore limb .	18	17	15	16
Length of head	11	11	10	11
Width of head	7·5	8	7	8
Depth of head	6	6	6	6
Fore limb	15	16	15	15
Hind limb	23	23	22	21
Foot	13	13	12	12
Tail	75	74	75	70

1, 2. ♂, Tangier. 3. ♀, Tangier. 4. ♀, Mogador.

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Particulars of Specimens Examined.

		1.	2.	3.	4.	5.	6.
♂	Tangier	44	24	24	17	12	15
,,	,,	43	23	26	17	12	17
,,	,,	41	22	23	16	11	17
,,	,,	41	22	25	17	12–11	16
,,	,,	37	22	24	19	11	15
♀	,,	47	22	29	17	12	16
,,	,,	46	24	26	15	10	15
,,	,,	43	24	28	15	11	15
,,	,,	41	23	29	19	12–13	16
♂	Mogador	42	22	23	16	12	16
♀	,,	45	21	28	15	10–11	15

Same explanation as for table on p. 167.

Habitat.—Morocco (Tangier, Tetuan, Mogador).

4. PSAMMODROMUS ALGIRUS.

Lacerta algira, Linn. Syst. Nat. i, p. 363 (1766).

Scincus algira, Daud. Hist. Rept. iv, p. 269 (1802).

Tropidosaura algira, Fitzing. N. Class. Rept. p 52 (1826); Dum. & Bibr. Erp. Gén. v, p. 169 (1839); Bonap. Icon. Faun. Ital., Amf. (1841); Strauch, Erp. Alg. p. 31 (1862); Boettg. Abh. Senck. Ges. ix, 1874, p. 129; Schreib. Herp. Eur. p. 455 (1875); C. de Planey, Bull. Soc. Zool. France, 1878, p. 309; Bedriaga, Arch. f. Nat. 1879, p. 332, and Abh. Senck. Ges. xiv, 1886, p. 418.

Algira barbarica, Guér. Icon. Règne Anim, Rept. pl. v, fig. 2 (1829); Gray, Cat. Liz. p. 35 (1845).

Psammuros algira, Wagl. Syst. Amph. p. 156 (1830).

Lacerta (*Algyra*) *cuvieri*, Gray, Griff. An. Kingd. ix, Syn. p. 35 (1831).

Algira (*Tropidosaura*) *algira*, Boettg. Abh. Senck. Ges. xiii, 1883, p. 116, and in Kobelt, Reis. Alg. Tunis, p. 468 (1885).

Tropidosaura algira, var. *doriæ*, Bedriaga, Abh. Senck. Ges. xiv, 1886, p. 425.

Psammodromus algirus, Bouleng. Cat. Liz. iii, p. 50 (1887); Bedriaga, Amph. Rept. Portug. p. 57 (1889); Bouleng. Tr. Zool. Soc. xiii, 1891, p. 128; Doumergue, Erp. Oran. p. 133, pl. ix, figs. 1–3 (1901); Schreib. Herp. Eur., Ed. 2, p. 363 (1912).

Tropidosaura algira, var. *nolli*, J. v. Fisch. Zool. Gart. 1887, p. 69, fig.

Body moderately depressed. Head rather small, feebly depressed, convex on the occiput, about $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as broad, its depth

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equal to the distance between the anterior corner or the centre of the eye and the tympanum, its length $3\frac{2}{3}$ to $4\frac{1}{2}$ times in length to vent ($3\frac{1}{3}$ to $3\frac{1}{2}$ times in young); snout obtusely pointed, as long as or a little shorter than postocular part of head, with rather feeble or obtuse canthus and slightly concave loreal region; a sharp keel below the eye, on the freno-ocular and subocular shields. Neck as broad as or broader than the head. The hind limb reaches the elbow, the axil, the shoulder, or the ante-humeral fold; foot $1\frac{1}{6}$ to $1\frac{2}{5}$ times length of head; digits feebly compressed, with smooth, more or less distinctly tubercular, or feebly bicarinate* lamellæ inferiorly. Tail 2 to nearly 3 times as long as head and body, often a little less than twice in the very young.

Pterygoid teeth present, in 2 or 3 series.

Nostril between four shields, or bordered behind and below by a narrow rim formed by the nasal; nasals forming a short or very short suture behind the rostral; prefrontals forming a short or moderately long suture†; frontal $1\frac{1}{3}$ to $1\frac{3}{4}$ times as long as broad, as long as or slightly longer than its distance from the end of the snout, narrower behind than in front, lateral borders slightly concave, rarely of equal width throughout‡; parietals as long as broad or longer (up to $1\frac{1}{2}$), with convex outer border; interparietal as long as broad or a little longer (rarely $1\frac{1}{2}$ times as long as broad); occipital as large as the interparietal or a little smaller (rarely much smaller), often a little broader.§ Four supraoculars, first very small, second usually longer than third, fourth small but larger than first; four superciliaries, rarely three or five, second much longer than the others, all in contact with the supraoculars. Rostral entering the nostril; a single post-nasal; anterior loreal usually shorter than second‖; four upper labials¶ anterior to the subocular, which is much narrower beneath than above; two or three upper temporals**; lower temporals usually large, separated from the upper by very irregular small

* In male from Seville, in females from Madrid, Seville, Rahamna, Algiers, Tuggurt, and Galitone Id.

† Separated by an azygos shield in a specimen from Barcelona.

‡ Male from Algarve.

§ An additional shield between interparietal and occipital in a male from Villa Franca.

‖ A single loreal in male from Villa Franca, in male from Oran, and in female from Algiers.

¶ 3 on both sides in female from Madrid, 4 one side in female from Aïn Sefra; 5 on one side in females from Seville and Algarve.

** First rarely in contact with fourth supraocular: males from Cap Cerbère, Fenzou, Seksawa, Blida, and Aïn Draham.

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shields, which may be feebly keeled; a large tympanic shield. Lower eyelid usually with the median scales feebly enlarged vertically. Gular scales imbricate, gradually enlarged posteriorly, where they merge without interruption into the ventrals; 14 to 20 scales in a straight median line; no gular fold; no collar, but a curved fold in front of the shoulder.* Scales on side of neck strongly imbricate, pointed, strongly keeled.

Scales on back acutely pointed and mucronate, with strong straight keels, on sides similar but narrower, passing gradually into the ventrals, which are not or but little broader than long, rounded or obtusely pointed and very strongly imbricate; 23 to 28 scales across the middle of the body. Ventral plates in 6 longitudinal and 22 to 29 transverse series. Preanal plate moderate or small, with obtusely pointed scales around it.

Scales on limbs pointed, imbricate, keeled. 14 to 21† femoral pores on each side, usually 15 to 19. 19 to 24 lamellar scales under the fourth toe, usually 19 to 23.

Caudal scales similar to dorsals, the whorls equal in length, the fourth or fifth containing 18 to 23 scales.

Bronzy or coppery brown above, usually with two yellowish white or golden-yellow streaks on each side, the upper from the superciliary edge to the tail, the lower from the upper lip to the base of the hind limb, passing just below the ear-opening and above the fore limb; these streaks may be edged with dark brown or black; a third light streak may extend from the eye to the ear or to the side of the neck; a black streak, or its traces, from the nostril to the eye, then bifurcating, usually present; males with the flanks sometimes spotted with black and with a pale blue ocellus above the shoulder, sometimes followed by a few more; a dark brown or blackish vertebral stripe sometimes present in specimens from Morocco and Algeria, also in one from Spain (Tellieux) preserved in the Paris Museum, and when bordered by a yellow streak on each side we have the six-streaked var. *nolli* of J. v. Fischer. Lower parts white or yellowish or greenish white, the lower surface of the hind limbs and of the tail orange or red in the young.

A melanistic form, blackish above with pale blue dots, bluish grey beneath, occurs on Galitone Island near Galita, Tunisia, and has been named var. *doriæ* by Bedriaga.

* This fold serves for distinguishing between gular and ventral scales, which completely merge into each other.

† 13 to 16 according to Bedriaga. The pores may be so small and indistinct in females as to render their exact counting difficult.

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Measurements (in millimetres) :

	1.	2.	3.	4.	5.
From end of snout to vent	67	76	77	72	72
„ „ „ fore limb	24	28	26	25	27
Length of head	16	20	17	16	19
Width of head	11	13	11	11	11
Depth of head	10	11	9	10	10
Fore limb	23	26	27	25	26
Hind limb	37	41	42	40	40
Foot	20	23	21	21	23
Tail	135	167	190	180	175

1. ♂, Neffiez, Hérault. 2. ♂, Blida. 3. ♀, Tuggurt. 4. ♀, Rahamna. 5. ♀, Galitone Id. (type of var. *doriæ*).

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.
FRANCE :						
♂ Neffiez, Hérault	67	24	25	16	17	20
„ C. Cerbère, Pyrénées-Orient.	70	24	22	20	17	20
SPAIN :						
Hgr. Barcelona	43	24	25	18	15	20
♂ Villa Franca, Leon	72	26	24	21	19–20	20
„ „	70	24	23	18	17–16	20
„ „	59	24	24	17	17–18	21
♀ Madrid	71	26	26	18	18	23
♂ Huelves	60	26	26	19	20	23
♀ „	62	24	28	18	17	23
♂ Seville	63	25	25	18	21–20	23
♀ „	68	24	26	17	15	23
„ „	60	24	26	19	19	22
„ Spain, **P.M.**	64	24	25	19	14	20
PORTUGAL :						
♂ Algarve	71	27	26	19	19–18	24
♀ „	61	24	27	16	16	23
MOROCCO :						
♂ Tangier	57	26	25	16	16–17	20
♀ „	73	24	27	17	16	21
♂ Fenzou	76	24	27	17	16	19
„ „	74	24	24	15	17–18	20
„ „	55	26	25	17	19–18	20
„ Seksawa	74	24	26	15	17	21
♀ Rahamna	72	27	26	14	16–15	22

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	1.	2.	3.	4.	5.	6.
♀ Tamaruth Valley	75	25	26	16	17–18	20
,, ,,	54	26	26	18	18	20
ALGERIA:						
♂ Oran	74	27	29	14	17	23
♀ ,,	70	28	29	18	16–18	19
,, ,,	60	28	28	15	17	23
,, Founassa, Oran	68	26	27	15	17	20
♂ Aïn Sefra	56	25	23	16	16	20
♀ ,,	70	23	26	17	16–15	19
,, ,,	65	25	26	18	16	20
♂ Algiers	82	26	28	17	18	20
♀ ,,	72	27	27	15	17	20
,, ,,	63	27	27	15	18–17	20
♂ Blida	76	28	28	17	16–18	20
,, ,,	65	28	27	16	17–16	21
♂ Hamman Rirha	69	26	25	18	17–18	21
,, Guelt es Stel	66	28	24	16	17	19
♀ ,,	73	28	28	18	15	19
,, Tuggurt	77	24	27	17	15	21
TUNISIA:						
♂ Aïn Cherchara	66	27	25	16	17–18	20
,, Aïn Draham	67	28	27	17	19	23
♀ Galitone Id. (type of v. *doriæ*)	72	28	26	20	16–17	21
,, ,,	54	28	25	19	19–18	23

Same explanation as for table on p. 167.

Habitat.—Mediterranean Coast of France, Spain, Portugal, Morocco, up to 1500 m. altitude, Algeria, including the Northern Sahara, Tunisia. The melanistic var. *doriæ* inhabits the Tunisian island Galitone, near Galita.

A specimen labelled as from Largori, N.E. Somaliland, is preserved in the Paris Museum, but strong doubts are entertained as to the correctness of this locality. See above, p. 61.

15. ICHNOTROPIS.

Tropidosaura, part., Dum. & Bibr. Erp. Gén. v, p. 163 (1839).

Algira, part., Gray, Cat. Liz. p. 35 (1845).

Ichnotropis, Peters, Mon. Berl. Ac. 1854, p. 617; Strauch, Mél. Biol. Ac. St. Pétersb. vi, 1867, p. 408; Peters, Reise Mossamb. iii, p. 45 (1882); Lataste, Ann. Mus. Genova (2) ii, 1885, p. 125; Bouleng. Cat. Liz. iii, p. 78 (1887).

Eremias, part., Peters, Mon. Berl. Ac. 1866, p. 888.

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Head-shields normal, but occipital sometimes absent. Nostril pierced between an upper and a lower nasal and a postnasal. Lower eyelid scaly. Collar absent; a short fold in front of the arm. Back covered with large rhombic or lanceolate, strongly keeled and imbricate scales; ventral plates smooth, imbricate. Digits feebly compressed, with sharply keeled lamellæ inferiorly. Femoral pores. Tail long, cylindrical.

Tropical and South Africa.

The parietal foramen and pterygoid teeth are present.

This genus may be regarded as derived from *Tropidosaura*, differing only in the keeled subdigital lamellæ combined with the presence of a subnasal separating the nasal from the first upper labial; but it must be borne in mind that the latter difference is no greater than between species united in the same genus under *Cabrita* and *Ophiops*.

Synopsis of the Species.

I. Frontonasal single; subocular usually bordering the mouth; occipital usually present; 34 to 40 scales and plates round middle of body; 8 to 13 (rarely 15) femoral pores on each side.

A. A single anterior loreal.

Upper head-shields rather feebly striated; prefrontal in contact with the anterior of the two large supraoculars, which are in contact with superciliaries; hind limb reaching a little beyond the shoulder in males . . . . . *I. tanganicana*, Blgr., p. 181.

Upper head-shields strongly striated and keeled; prefrontal usually in contact with the anterior of the two large supraoculars, which are separated from the superciliaries by small scales; hind limb reaching axil or shoulder in males. *I. bivittata*, Bocage, p. 182.

Upper head-shields strongly striated; prefrontal not reaching the anterior of the two large supraoculars, which is as long as or a little shorter than its distance from the second loreal; a series of small scales between supraoculars and superciliaries; hind limb reaching between shoulder and ear in males . . . . . *I. capensis*, A. Smith, p. 185.

Upper head-shields strongly striated; prefrontal not reaching the anterior of the two large supraoculars, which is longer than its distance from the second loreal; a series of small scales between supraoculars and superciliaries; hind limb reaching ear or between ear and eye in males *I. longipes*, Blgr., p. 188.

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B. Two superposed anterior loreals; upper head-shields strongly striated; frontonasal not broader than long.
I. chapini, Schmidt, p. 190.

II. Frontonasal longitudinally divided; subocular not bordering the mouth; occipital usually absent; 46 to 58 scales and plates round middle of body; 13 to 16 femoral pores on each side . . . . . *I. squamulosa*, Peters, p. 191.

1. ICHNOTROPIS TANGANICANA.

Ichnotropis tanganicana, Boulenger, Ann. & Mag. N. H. (8) xix, 1917, p. 278.

Head and body feebly depressed. Head $1\frac{2}{3}$ times as long as broad, its depth equal to the distance between the centre of the eye and the tympanum, its length $3\frac{1}{5}$ times in length to vent; snout obtusely pointed, as long as the postocular part of the head, with rather strong canthus and feebly concave loreal region; a feeble concavity on the upper surface of the snout and the anterior half of the frontal; a feeble keel below the eye. Pileus $2\frac{1}{4}$ times as long as broad. Neck narrower than the head. The hind limb reaches a little beyond the shoulder; foot a little longer than the head; digits feebly compressed.

Upper head-shields rather feebly striated; nostril between three shields; nasals forming a suture behind the rostral; frontonasal as long as broad; prefrontals longer than broad, in contact with the second supraocular; frontal as long as its distance from the rostral, nearly twice as long as broad, a little narrower behind than in front; parietals longer than broad, rounded behind, in contact with the third supraocular; interparietal a little larger than the frontoparietals, in contact with a small and rather irregular occipital, which projects beyond the parietals. 4 supraoculars, first and fourth small; 4 superciliaries, first longest and forming a very oblique suture with the second, its inner border entirely in contact with the first and second supraoculars; fourth superciliary in contact with the third and fourth supraoculars; 3 or 4 small granules between the second and third superciliaries and the supraoculars. Lower nasal narrowly in contact with the rostral; anterior loreal shorter than the second; 4 upper labials anterior to the subocular, which is a little narrower beneath than above and broadly borders the mouth. A large upper temporal, forming a suture with the fourth supraocular; temporal scales rather large, hexagonal, feebly keeled; a narrow tympanic shield. Lower eyelid with a series of vertically enlarged scales in the middle.

5 pairs of chin-shields, the 3 anterior in contact in the middle;

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gular scales imbricate, passing gradually into the ventral plates, 22 in a straight median line.

Dorsal scales rhombic-lanceolate, strongly keeled, acutely pointed, a little smaller than upper caudals; lateral scales a little smaller, smooth towards the ventral plates, into which they pass gradually; ventral plates rounded-hexagonal, not broader than long, in 8 longitudinal and 25 transverse series; 36 scales and plates round the middle of the body. Preanal region covered with irregular scales.

Scales on limbs smaller than dorsals, strongly keeled. 11–12 femoral pores. Subdigital lamellæ tricarinate, 19 under the fourth toe.

Caudal scales strongly keeled, upper similar to dorsals, 26 in the fourth whorl behind the postanal granules.

Bronzy olive above, with a few small transverse blackish spots in three longitudinal series on the nape and two on the body; a black streak from the nostril to the eye, and another on the edge of the mouth; a white, black-edged streak from below the eye, through the ear, to above the axil; white, black-edged ocellar spots on the posterior part of the back, on the hind limbs, and on the tail. Lower parts whitish.

Measurements (in millimetres):

From end of snout to vent	38
,, ,, ,, fore limb	15
Length of head	10
Width of head	6
Depth of head	4
Fore limb	13
Hind limb	21
Foot	11

This species is based on a single male specimen, probably half-grown, from the East Coast of Lake Tanganyika, presented to the British Museum by Mr. W. H. Nutt in 1896.

The feebly striated upper head-shields and the arrangement of the nasal and supraocular shields are my reasons for regarding *I. tanganicana* as the most generalized species of the genus.

2. ICHNOTROPIS BIVITTATA.

Ichnotropis bivittata, Bocage, Jorn. Sc. Lisb. i, 1866, p. 43; Peters, Reise Mossamb. iii, p. 48 (1882).

Ichnotropis capensis, part., Bouleng. Cat. Liz. iii, p. 78 (1887); Bocage, Herp. Ang. p. 30 (1895).

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Body moderately depressed. Head rather feebly depressed, $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as broad, its depth equal to the distance between the anterior corner or the centre of the eye and the tympanum, its length $3\frac{3}{4}$ to 4 times in length to vent in males, $4\frac{1}{4}$ to $4\frac{2}{3}$ times in females; snout pointed, as long as the postocular part of the head, with sharp canthus and concave loreal region; a rather deep concavity on the upper surface of the snout and on the frontal, between two strong keels; an obtuse keel below the eye. Pileus 2 to $2\frac{1}{4}$ times as long as broad. Neck as broad as or a little narrower than the head. The hind limb reaches the axil or the shoulder in males, the elbow or the axil in females; foot as long as or a little longer than the head; digits feebly compressed. Tail $1\frac{1}{2}$ to 2 times as long as head and body.

Upper head-shields strongly and coarsely striated and keeled; nostril between three shields; nasals forming a suture behind the rostral; frontonasal as long as broad or a little broader than long; prefrontals much longer than broad, usually in contact with the anterior of the two large supraoculars, and forming an extensive median suture*; frontal as long as or a little shorter than its distance from the end of the snout, 2 to $2\frac{1}{2}$ times as long as broad, of equal width throughout or a little narrower behind than in front; parietals $1\frac{1}{2}$ to 2 times as long as broad, rounded or obliquely truncate behind; interparietal as large as or larger than the frontoparietals, usually in contact with a shorter occipital, which may be large or small, and the posterior border of which is rounded and projects beyond the parietals; occipital exceptionally broken up into scales. 4 supraoculars, the first small or broken up into 2 to 5 shields; anterior large supraocular longer than its distance from the second loreal, second usually in contact with the parietal; 4, rarely 5, superciliaries, first longest and forming a very oblique suture with the second; one, rarely two, series of small scales between the supraoculars and the superciliaries. Lower nasal broadly in contact with the rostral; postnasal small, between the upper and lower nasals; anterior loreal much shorter than second; 4, rarely 5 or 6, upper labials anterior to the subocular, which is much narrower beneath than above, and borders the mouth.† An enlarged upper temporal usually present, sometimes separated from the parietals by small shields; temporal scales rather large, hexagonal, strongly keeled; a narrow tympanic shield. Lower eyelid with a series of vertically enlarged scales in the middle.

5 pairs of chin-shields, the 3 anterior in contact in the middle;

* Separated by two azygos shields in a male from Caconda.

† In a male from Caconda, the lower part of the right subocular is cut off to form an additional upper labial.

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gular scales imbricate, passing gradually into the ventral plates, 18 to 26 in a straight median line.

Dorsal scales rhombic-lanceolate, strongly keeled, acutely pointed or shortly mucronate, as large as or a little larger than the upper caudals; lateral scales as large or a little smaller; ventral plates rounded-hexagonal, not or but little broader than long, in 8 or 10 longitudinal and 27 to 33 transverse series; 34 to 40 scales and plates round the middle of the body. Preanal region covered with irregular scales.

Scales on arm nearly as large as dorsals, smooth or feebly uni- or tricarinate, on tibia smaller and strongly keeled. 9 to 13 femoral pores on each side, rarely 8 or 15. Subdigital lamellæ pluricarinate, spinulose, 18 to 24 under the fourth toe.

Caudal scales strongly keeled, upper similar to dorsals, 24 to 28 in the fourth or fifth whorl behind the postanal granules.

Bronzy brown or coppery red above, back uniform or with two series of large black spots or cross-bars, rarely with a rather irregular vertebral series of small black spots. Frequently three black streaks on each side of the head and neck, the upper from the posterior corner of the eye, through the eye and the upper part of the tympanum, the lower from the first upper labial through the lower part of the tympanum; white streaks between them; these black and white streaks continued up the side of the body, or broken up into spots. A male * is remarkable for the presence of a broad pale reddish brown vertebral stripe. Some females and young with the markings very indistinct or reduced to a more or less distinct darker brown lateral band. A young † is bronzy brown without markings, except a round whitish spot above the shoulder. Lower parts white.

Measurements (in millimetres):

	1.	2.	3.	4.
From end of snout to vent	61	66	78	69
,, ,, ,, fore limb	24	23	30	24
Length of head	15	14	20	16
Width of head	9·5	9	12	10
Depth of head	8	8	10	8
Fore limb	21	21	26	21
Hind limb	32	31	42	34
Foot	17	16	21	17
Tail	—	90	167	106

1. ♂, Duque de Bragança, type. 2. ♀, ditto. 3. ♂, Caconda. 4. ♀, ditto.

* From Caconda.

† From between Benguella and Bihé.

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Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.
♂ Duque de Bragança (type) .	61	36	27	24	10–9	19	4
♀ „ „ .	66	36	33	21	9	20	4
„ „ . .	60	36	29	25	11–10	19	4
„ „ . .	58	40	32	26	10	18	4
♂ Bange Ngola . . .	63	34	29	25	10–11	20	4
„ „ . . .	62	36	28	25	9–8	19	4
„ Benguella-Bihé . . .	70	35	28	19	10–11	18	4
„ „ . . .	66	37	27	24	13–11	20	4
„ „ . . .	66	34	30	21	12	22	4
„ Caconda	78	39	30	19	13–15	24	4–5
„ „	76	38	27	21	12–13	21	5
„ „	67	34	28	24	11	20	4
„ „	63	35	27	20	11	18	5
♀ „	71	39	30	21	13	21	4
„ „	69	40	28	20	12	21	4
„ „	68	36	30	19	11–12	20	4
„ „	64	38	30	25	13	19	4
„ „	63	40	29	23	13–12	22	6–5
♂ Chivaka	72	35	28	18	11	19	4
„ Angola, **P.M.** . . .	70	39	32	22	11	19	5
„ French Congo, **P.M.** . .	66	36	27	19	9	18	4

For explanation of table see p. 188.

Habitat.—Originally described from Angola. A specimen from the Kuango River, Belgian Congo, is preserved in the Tervueren Museum (Boulenger, Ann. & Mag. N. H. 6, xix, 1897, p. 277), and one labelled Congo français (Pobéguin) is in the Paris Museum.

3. ICHNOTROPIS CAPENSIS.

Algyra capensis, A. Smith, Mag. N. H. (2) ii, 1838, p. 94; Gray, Cat. Liz. p. 36 (1845).

Tropidosaura capensis, Dum. & Bibr. Erp. Gén. v, p. 171 (1839); Bianconi, Spec. Zool. Mossamb. p. 61 (1851).

Tropidosaura dumerilii, A. Smith, Ill. Zool. S. Afr., Rept., App. p. 7 (1849).

Ichnotropis macrolepidota, Peters, Mon. Berl. Ac. 1854, p. 617, and Reise Mossamb. iii, p. 46, pl. viii, fig. 1 (1882).

Ichnotropis capensis, part., Bouleng. Cat. Liz. iii, p. 78 (1887).

Ichnotropis capensis, Hewitt, Ann. Transv. Mus. ii, 1910, p. 112; Werner, Jen. Denkschr. xvi, 1910, p. 329.

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Body rather strongly depressed. Head moderately depressed, $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as broad, its depth equal to the distance between the anterior corner or the centre of the eye and the tympanum, its length $3\frac{1}{2}$ to $3\frac{5}{6}$ times in length to vent in males, 4 to $4\frac{1}{4}$ times in females; snout pointed, as long as the postocular part of the head, with sharp canthus and concave loreal region; a lanceolate concavity on the upper surface of the snout and the anterior half of the frontal: a strong keel below the eye. Pileus 2 to $2\frac{1}{4}$ times as long as broad. Neck as broad as or a little narrower than the head. The hind limb reaches between the shoulder and the ear in males, the axil or the shoulder in females; foot a little longer than the head; digits feebly compressed. Tail $1\frac{1}{2}$ to 2 times as long as head and body.

Upper head-shields strongly and coarsely striated and keeled; nostril between three shields; nasals forming a suture behind the rostral; frontonasal broader than long; prefrontals longer than broad, not reaching the first large supraocular, forming an extensive median suture; frontal as long as or a little shorter than its distance from the end of the snout, $1\frac{2}{3}$ to $2\frac{1}{4}$ times as long as broad, narrower behind than in front; parietals longer than broad, rounded behind; interparietal as large as the frontoparietals, in contact with or narrowly separated from a much shorter occipital, the posterior border of which is rounded and projects beyond the parietals. Two large supraoculars, preceded and followed by small keeled scales; first supraocular as long as or a little shorter than its distance from the posterior loreal, in contact with the posterior half of the frontal, second sometimes narrowly in contact with the parietal; 4 or 5 superciliaries, first longest and forming a very oblique suture with the second; 1 or 2 series of granular scales between the supraoculars and the superciliaries. Lower nasal broadly in contact with the rostral; postnasal small, between the upper and lower nasals; anterior loreal as long as or a little shorter than second; 4, rarely 5, upper labials anterior to the subocular, which is much narrower beneath than above, and borders the mouth.* A large upper temporal; temporal scales rather large, hexagonal, strongly keeled; a narrow tympanic shield. Lower eyelid with a series of vertically enlarged scales in the middle.

5 pairs of chin-shields, the 3 anterior in contact in the middle; gular scales imbricate, passing gradually into the ventral plates, 19 to 23 in a straight median line.

Dorsal scales rhombic-lanceolate, strongly keeled, acutely pointed or shortly mucronate, nearly as large as upper caudals; lateral scales

* In a male from Moeleni the lower part of the subocular is cut off to form a supplementary labial as in *I. squamulosa*.

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a little smaller, smooth towards the ventral plates, into which they pass gradually; ventral plates rounded-hexagonal, not or but little broader than long, in 8 or 10 longitudinal and 25 to 31 transverse series; 34 or 36 scales and plates round the middle of the body. Preanal region covered with irregular scales, which are very small in females.

Scales on limbs smaller than dorsals, strongly keeled, tri- to quinque-carinate on the arm. 9 to 13 femoral pores on each side.* Subdigital lamellæ pluricarinate, spinulose, 18 to 24 under the fourth toe.

Caudal scales strongly keeled, upper similar to dorsals, 24 to 28 in the fourth or fifth whorl behind the postanal granules.

Greyish or yellowish brown above, head and back sometimes with small blackish spots; two whitish streaks on each side, edged with black streaks or series of spots or ocelli, the upper light streak from the superciliary edge to the base of the tail, the lower from the upper lip to the groin and reappearing on the tail; sometimes a third light streak from below the ear to the fore limb; two black streaks on each side of the head, the upper passing through the eye, the lower along the edge of the mouth. Lower parts white.

Hewitt thus describes the life colours of a breeding pair: "Male reddish brown above; a series of ill-defined and almost confluent black spots dorsolaterally; more laterally a broad black band, starting from the end of the snout and passing through the eye above the ear and going down the tail; more ventrally another prominent black band, arising from the tip of the snout and passing along the upper lip and to the shoulder, whence the band is continued along the flanks to the thighs as a brilliant vermilion red streak†; these three bands enclose two pale streaks, the more dorsal being white, and the lower one bright yellow in the head and neck region; ventrally white, except on the lower lip, gular region, and neck, where there is a decided yellow tinge. The female is similar, but not so brightly coloured, the yellow colour being absent, and the black and red bands less brilliant."

Measurements (in millimetres):

	♂	♀
From end of snout to vent . .	50	55
,, ,, ,, fore limb .	19	21
Length of head	13	13
Width of head	7·5	8
Depth of head	6	6

* 12 to 14 in Kalahari specimens, according to Werner.

† I have also observed this red lateral streak in preserved male specimens from Zululand.

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	♂	♀
Fore limb	17	20
Hind limb	26	30
Foot	15	15
Tail	100	92

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.
♂ type of *T. dumerilii*	57	36	28	22	13–11	24	4
,, Mseleni, Zululand	55	36	28	22	12	21	4
,, ,, ,,	51	34	27	22	11–12	22	4
♀ ,, ,,	48	34	31	21	12–11	20	4
♂ Umfulosi ,,	52	34	25	22	12–13	20	4
,, ,, ,,	52	34	29	22	11	19	4
,, ,, ,,	50	34	28	20	12–11	20	4–5
,, ,, ,,	48	34	27	19	12	21	4–5
♀ ,, ,,	55	36	28	23	12	20	4
,, ,, ,,	51	36	30	29	11	18	4
,, Vunda, Lower Congo	57	36	29	21	9	19	4

1. Length from snout to vent (in millimetres). 2. Scales and plates round middle of body. 3. Transverse series of ventral plates. 4. Gular scales in straight median series. 5. Femoral pores (right and left if differing). 6. Lamellæ under fourth toe. 7. Upper labials anterior to subocular.

Same explanation for the following tables.

Habitat.—Portuguese East Africa and Southern Rhodesia to Zululand, the Transvaal, and the Kalahari. Also Lower Congo.

The types of *A. capensis*, which appear to be lost, as well as those of *T. dumerilii*, were obtained in the sandy deserts about Latakoo, Bechuanaland.

The specimens in the S. African Museum are from Delagoa Bay, Pietersburg (Transvaal), Matoppo Hills (S. Rhodesia), and Mochudi (Bechuanaland).

4. ICHNOTROPIS LONGIPES.

Ichnotropis longipes, Boulenger, Proc. Zool. Soc. 1902, ii, p. 17, pl. iii, fig. 2.

Body rather strongly depressed. Head moderately depressed, $1\frac{3}{5}$ to $1\frac{2}{3}$ times as long as broad, its depth equal to the distance between the centre of the eye and the tympanum, its length $3\frac{1}{2}$ to $3\frac{3}{4}$ times in length to vent (males); snout pointed, as long as the postocular part of the head, with sharp canthus and concave loreal

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region; a feeble concavity along the upper surface of the snout and the frontal shield; a strong keel below the eye. Pileus twice as long as broad. Neck as broad as or a little narrower than the head. The hind limb reaches the ear or between the ear and the eye; foot $1\frac{1}{4}$ to $1\frac{1}{3}$ times the length of the head; digits feebly compressed. Tail 2 to $2\frac{1}{4}$ times as long as head and body.

Upper head-shields strongly and coarsely striated and keeled; nostril between three shields; nasals forming a suture behind the rostral; frontonasal broader than long; prefrontals longer than broad, not reaching the first supraocular, forming an extensive median suture; frontal as long as or a little shorter than its distance from the end of the snout, $1\frac{2}{3}$ to 2 times as long as broad, narrower behind than in front; parietals longer than broad, rounded behind; interparietal as large as or a little larger than the frontoparietals, in contact with a much shorter occipital, the posterior border of which is rounded and projects beyond the parietals. Two large supraoculars, first longer than its distance from the second loreal, from which it is separated by one, two, or three small keeled shields; one or two small posterior supraoculars; 4 superciliaries, first longest and forming a very oblique suture with the second; a series of granular scales between the supraoculars and the superciliaries. Lower nasal broadly in contact with the rostral; postnasal small, between the upper and lower nasals; anterior loreal shorter than the second; 4 upper labials anterior to the subocular, which is much narrower beneath than above and borders the mouth. A large upper temporal; temporal scales rather large, hexagonal, strongly keeled; a narrow tympanic shield. Lower eyelid with a series of vertically enlarged scales in the middle.

5 pairs of chin-shields, the 3 anterior in contact in the middle; gular scales imbricate, passing gradually into the ventral plates, 21 to 23 in a straight median line.

Dorsal scales lanceolate, strongly keeled, acutely pointed or shortly mucronate, nearly as large as the upper caudals; lateral scales not smaller, smooth towards the ventral plates, into which they pass gradually; ventral plates rounded-hexagonal, not broader than long, in 10 longitudinal and 26 or 27 transverse series; 36 or 38 scales and plates round the middle of the body. Preanal region covered with irregular scales.

Scales on limbs smaller than dorsals, strongly keeled, tri- or quinquecarinate on the arm. 9 or 10 femoral pores on each side. Subdigital lamellæ pluricarinate, spinulose, 19 to 21 under the fourth toe.

Caudal scales strongly keeled, upper similar to dorsals, 24 to 28 in the fourth or fifth whorl behind the postanal granules.

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Pale grey-brown above, tinged with orange on the sides of the back; no spots on the head and body; a black streak along each side, from the tip of the snout, through the eye, to the anterior fourth of the tail; a second black streak along the upper lip from the second labial, extending to the shoulder and separated from the upper one by a white streak; some large black spots on the hind limbs. Lower parts white.

Measurements (in millimetres):

From end of snout to vent	49
,, ,, ,, fore limb	21
Length of head	13
Width of head	8
Depth of head	6
Fore limb	19
Hind limb	33
Foot	17
Tail	111

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.
♂ Mazoe, Mashonaland (type)	49	38	27	23	10–9	19	4
,, ,, ,, ,,	46	38	26	23	10	21	4
,, ,, ,, ,,	46	36	27	22	9	19	4
,, Bulawayo ,,	53	36	27	21	10–9	21	4

Habitat.—Southern Rhodesia. A specimen from Livingstone, N.W. Rhodesia, is preserved in the South African Museum.

5. ICHNOTROPIS CHAPINI.

Ichnotropis chapini, Schmidt, Bull. Amer. Mus. N. H. xxxix, 1919, p. 508, fig.

Habitus as in *I. capensis*; hind limb not reaching axil (female). Upper head-shields strongly striated, frontal bicarinate; nasals forming a short suture behind the rostral; frontonasal small, as long as broad; prefrontals longer than broad, not reaching the first large supraocular, forming an extensive median suture; frontal as long as its distance from the end of the snout; $2\frac{1}{4}$ times as long as broad, of equal width throughout; parietals longer than broad, rounded behind; interparietal as long as the frontoparietals, in contact with a small occipital, the posterior border of which is rounded and projects beyond the parietals; two large supraoculars, preceded and followed by small scales, first longer than its distance from the posterior loreal,

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in contact with the posterior half of the frontal, second narrowly in contact with the frontal; 4 superciliaries, first very large; a series of granular scales between the supraoculars and the superciliaries. Nostril between three shields; two superposed anterior loreals; 4 or 5 upper labials anterior to the subocular, which borders the mouth. A large upper temporal; temporal scales small, uniform, keeled; a curved tympanic shield.

Dorsal scales strongly keeled; ventral plates in 10 longitudinal and 30 transverse series; 35 scales and plates round the body. Preanal region with small scales.

Greyish brown above; a white black-edged lateral stripe originating on the subocular, passing above the arm but not reaching the hind limb; transverse black spots on the sides and two series of similar markings along the back; ventral plates white, edged with grey, those of the two outer rows dotted with brown.

Total length 135 millim.; tail 77.

Habitat.—Abu, Uelle, Belgian Congo.—The type is preserved in the American Museum of Natural History, New York.

6. ICHNOTROPIS SQUAMULOSA.

Ichnotropis squamulosa, Peters, Mon. Berl. Ac. 1854, p. 617, and Reise Mossamb. iii, p. 49, pl. viii, fig. 2 (1883); Boulenger, Cat. Liz. iii, p. 79 (1887); Boettg. Ber. Senck. Ges. 1894, p. 89; Tornier, Thierw. O.-Afr., Kriechth. p. 39 (1897); Sternf. Sitzb. Ges. Naturf. Fr. Berl. 1911, p. 247, and Mitt. Zool. Mus. Berl. v, 1911, p. 417; Nieden, Mitt. Zool. Mus. Berl. vii, 1913, p. 78.

Head and body moderately depressed. Head $1\frac{1}{2}$ times as long as broad, its depth equal to the distance between the anterior corner or the centre of the eye and the tympanum, $3\frac{2}{3}$ to $4\frac{1}{4}$ times in length to vent in males, $4\frac{2}{3}$ times in females; snout pointed, as long as the post-ocular part of the head, with sharp canthus and concave loreal region; a deep concavity along the upper surface of the snout and the frontal shield, bordered by two strong keels; a strong keel below the eye. Pileus twice as long as broad. Neck as broad as or a little narrower than the head. The hind limb reaches the shoulder or the ante-humeral fold; foot as long as or a little longer than the head; digits feebly compressed. Tail nearly twice as long as head and body.

Upper head-shields with granular rugosities, keels, and radiating striæ; nostril between three shields; nasals forming a suture behind the rostral; frontonasal as long as broad or a littler broader than long, longitudinally divided into two; prefrontals longer than broad,

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usually not in contact with the anterior large supraocular, forming an extensive median suture; frontal as long as or a little shorter than its distance from the end of the snout, 2 to $2\frac{1}{4}$ times as long as broad, a little narrower behind than in front; parietals longer than broad, obliquely truncate behind; interparietal rhombic, as large as or smaller than the frontoparietals, separating the parietals; occipital absent, very rarely present.* Two large supraoculars, preceded and followed by small keeled scales, the anterior as long as or a little longer than its distance from the second loreal; 4 superciliaries, first longest and forming a very oblique suture with the second; a series of small scales between the supraoculars and the superciliaries. Lower nasal broadly in contact with the rostral; postnasal small, between the upper and lower nasals; anterior loreal shorter than the second; 5 to 7 upper labials to below the centre of the eye; subocular not reaching the mouth, resting on the fourth to sixth, fourth to seventh, or fifth to eighth upper labials. A very large and strongly keeled upper temporal; temporal scales rather large, rhombic, subimbricate, strongly keeled; a narrow tympanic shield. Lower eyelid with two series of feebly enlarged scales.

5 pairs of chin-shields, the 2 or 3 anterior in contact in the middle; gular scales imbricate, passing gradually into the ventral plates, 23 to 29 in a straight median line.

Dorsal scales rhombic, strongly keeled, sometimes rather obtusely pointed, considerably smaller than the upper caudals; lateral scales not or but slightly smaller, smooth towards the ventral plates, into which they pass gradually; ventral plates rounded-hexagonal, not broader than long, in 10 or 12 longitudinal and 28 to 34 transverse series; 46 to 54† scales and plates round the middle of the body. Preanal region covered with irregular scales.

Scales on upper surface of limbs rhombic, strongly keeled, as large as or a little smaller than the dorsals. 13 to 15‡ femoral pores on each side. Subdigital lamellæ pluricarinate and spinulose, 18 to 20 under the fourth toe.

Upper caudal scales strongly keeled, basal subcaudals smooth or feebly keeled; 28 or 30 scales in the fourth or fifth whorl.

Coppery brown above, with two to five longitudinal series of whitish, black-edged spots on each side; young with two whitish streaks on each side, the upper from the canthus rostralis or the superciliary edge to the tail, the lower from below the eye to the base of the thigh,

* In a female specimen sent by Peters to the Paris Museum.

† Up to 58 according to Boettger.

‡ Up to 16 according to Peters.

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passing through the tympanum. Lower parts yellowish white or greyish.*

Measurements (in millimetres):

	1.	2.
From end of snout to vent	68	77
,, ,, ,, fore limb	27	31
Length of head	16	18
Width of head	11	12
Depth of head	8	10
Fore limb	26	28
Hind limb	37	42
Foot	19	21
Tail	—	150

1. ♂, Kalahari. 2. ♀, L. Nyassa.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.
♂ Kalahari	68	54	33	28	14	18	6–5
,, Molopo R., Bechuanaland	63	49	31	23	13	19	7
,, Kosi Bay, Zululand	60	50	28	28	15	19	5
,, Fort Hill, Nyassaland	67	46	30	24	13–14	?	5
,, ,, ,,	63	46	30	24	13	19	6–5
♀ Lake Nyassa	77	46	33	25	14–15	18	6
♂ Mozambique, **P.M.**	59	54	31	29	15	18	6–5
♀ ,, ,,	50	50	34	28	14–15	20	6–5

Habitat.—Bechuanaland, Zululand, Rhodesia, Nyassaland, Portuguese East Africa, Tanganyika Territory (Makonde Plateau). Also recorded from Damaraland by Peters.

16. CABRITA.

Cabrita, Gray, Ann. N. H. i, 1838, p. 282, and Cat. Liz. p. 43 (1845); Günth. Rept. Brit. Ind. p. 71 (1864); Strauch, Mél. Biol. Ac. St. Pétersb. vi, 1867, p. 408; Blanf. Journ. As. Soc. Beng. xxxix, 1870, p. 349; Lataste, Ann. Mus. Genova (2) ii, 1885, p. 126; Boulenger, Cat. Liz. iii, p. 69 (1887).

Calosaura, Dum. & Bibr. Erp. Gén. v, p. 261 (1839).

Cabritopsis, Beddome, in Blanf. Journ. As. Soc. Beng. xxxix, 1870, p. 348.

* In the Damaraland specimens, according to Peters, the ventral plates are spotted with black.

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Head-shields normal, but occipital sometimes absent. Nostril pierced between two or three nasals, well separated from the first upper labial. Lower eyelid distinct from the rudimentary upper, with a very large transparent disc. Collar absent, indicated only on the sides. Dorsal scales rhombic, imbricate and strongly keeled, large. Ventral plates imbricate, smooth. Digits compressed, with sharply keeled lamellæ inferiorly. Femoral pores. Tail long, cylindrical.

India and Ceylon.

The parietal foramen is present and there are no pterygoid teeth.

Apart from the large palpebral transparent disc and the keeled subdigital lamellæ, this genus agrees very closely with *Tropidosaura*, and the condition of the shields surrounding the nostril in *C. jerdonii* is exactly the same as in that genus and in *Nucras*. It is therefore highly probable that *Cabrita* was derived from extinct Northern members of the genus *Nucras*, after passing through forms more or less similar to *Tropidosaura*. The type species, *C. leschenaultii*, shows a higher grade of evolution, so far as the nasal shields are concerned, these having assumed the condition characteristic of the typical *Eremias* and of *Ichnotropis*. These views on the phylogeny of this species, as well as of *Psammodromus*, are based on the assumption that the arrangement of the shields bordering the nostril is more primitive in *Nucras* than in *Lacerta*, as explained above vol. i, p. 31.

The two species of this genus are easily distinguished by the following characters:

Nostril between an upper and a lower nasal, followed by one or two postnasals; anterior upper labials projecting, angular; occipital present; 42 to 52 scales and plates round middle of body; 24 to 27 transverse series of ventral plates; 19 to 25 gular scales in a straight line; 18 to 24 lamellæ under the fourth toe . . . . . *C. leschenaultii*, M.-Edw., p. 194.

A single nasal, followed by two superposed postnasals; occipital absent (very rarely present); 26 to 30 scales and plates round middle of body; 19 to 23 transverse series of ventral plates; 14 to 18 gular scales in a straight line; 17 to 19 lamellæ under the fourth toe . . . . *C. jerdonii*, Bedd., p. 197.

1. CABRITA LESCHENAULTII.

Lacerta leschenaultii, M.-Edw. Ann. Sc. Nat. xvi, 1829, pp. 80, 86, pl. vi, fig. 9.

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Cabrita brunnea, Gray, Ann. N. H. i, 1838, p. 282; Blanf. Journ. As. Soc. Beng. xxxix, 1870, p. 350.

Calosaura leschenaultii, Dum. & Bibr. Erp. Gén. v, p. 262 (1839).

Cabrita leschenaultii, Gray, Cat. Liz. p. 43 (1845); Günth. Rept. Brit. Ind. p. 70 (1864); Blanf. t.c. p. 345; Günth. Proc. Zool. Soc. 1875, p. 225; Blanf. Journ. As. Soc. Beng. xlviii, 1879, p. 112; Boulenq. Cat. Liz. iii, p. 70 (1887), and Faun. Ind., Rept. p. 172 (1890).

Body rather strongly depressed. Head much depressed, $1\frac{3}{5}$ to $1\frac{3}{4}$ times as long as broad, its depth equal to the distance between the centre of the eye and the tympanum, its length $3\frac{3}{5}$ to 4 times in length to vent in males, 4 to $4\frac{1}{2}$ times in females; snout pointed, with the nasals feebly swollen, longer than the postocular part of the head, flattened, with the labials projecting beyond the edge of the mouth and forming an obtusely angular ridge; canthus rostralis sharp, loreal region deeply concave; chin flat; a sharp keel below the eye. Pileus $2\frac{1}{4}$ to $2\frac{1}{3}$ times as long as broad. Neck as broad as or a little narrower than the head. The hind limb reaches the ear or between the ear and the eye in males, the shoulder or between the shoulder and the ear, rarely the ear, in females; foot $1\frac{2}{5}$ to $1\frac{1}{2}$ times as long as head; digits long and slender, rather strongly compressed. Tail $1\frac{3}{4}$ to a little over 2 times as long as head and body.

Upper head-shields coarsely striated, nearly smooth in the very young; nostril pierced between 2 or 3 shields; nasals forming a suture behind the rostral; frontonasal broader than long; prefrontals longer than broad, forming an extensive median suture; frontal as long as its distance from the end of the snout, $1\frac{2}{3}$ to $2\frac{1}{3}$ times as long as broad, narrower behind than in front; parietals as long as broad or a little longer than broad; interparietal and occipital small or very small, latter projecting beyond the parietals. 4 supraoculars, first and fourth small, first in contact with the frontal and sometimes divided into 2 or 3; 3 superciliaries, second very long; a series of granules between the principal supraoculars and the superciliaries. Two large nasals, an upper and a lower, the anterior half of the latter resting on the rostral, followed by one or two postnasals, the upper of which sometimes enters the nostril; anterior loreal much shorter than the second; 4, rarely 3 or 5, upper labials anterior to the subocular, which is much narrower beneath than above and borders the mouth. Two large upper temporals, first the longer and as often as not in contact with the fourth supraocular; temporal scales moderately large, hexagonal, strongly keeled; a large tympanic shield.

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6 pairs of chin-shields, the 3, rarely 2, anterior in contact in the middle; 19 to 25 gular scales in a straight line between the symphysis of the chin-shields and the anterior ventral plates, anterior small and juxtaposed, posterior large and imbricate.

Scales moderately large, scarcely larger on the back than on the sides, rhombic, strongly keeled; ventral plates broader than long, in 6 longitudinal and 24 to 27 transverse series; 42 to 52 scales and plates round the middle of the body. A large preanal plate, bordered by two semicircles of small plates, or two large plates one in front of the other.

Scales on upper surface of tibia rhombic and keeled, smaller than dorsals. 12 to 17 femoral pores on each side. Subdigital lamellæ uni- or bicarinate, 18 to 24 under the fourth toe.

Upper caudal scales large, strongly keeled and shortly mucronate; basal subcaudals smooth or obtusely keeled; 20 to 24 scales in the fourth or fifth whorl behind the postanal granules.

Grey, greyish brown, or reddish brown above, with two sharply defined black-edged white streaks on each side; the space between the two white streaks often black, uniform or closely spotted with whitish, the black produced forward, as a narrow streak, to the end of the snout; limbs and tail often reddish or orange red. Lower parts white.

Measurements (in millimetres):

	1.	2.	3.	4.
From end of snout to vent . .	50	47	57	47
„ „ „ fore limb .	20	17	21	17
Length of head	13	12	13	12
Width of head	8	7	7·5	7
Depth of head	6	5	5	5
Fore limb	20	19	21	19
Hind limb	34	33	35	32
Foot	19	19	19	18
Tail	103	—	100	93

1. ♂, Ganjam. 2. ♂, Ceylon. 3. ♀, S. E. Berar. 4. ♀, Foster Hill, Nilgherries.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.
Hgr. Coromandel (type), **P.M.** .	30	52	24	21	14	20	4
♂ Ganjam	50	44	25	20	15–14	21	4
„ „	48	47	25	22	17	24	4
♀ S.E. Berar . . .	57	42	27	21	14–13	20	3–4

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	1.	2.	3.	4.	5.	6.	7.
Yg. Godavery Valley . . .	30	46	24	20	14	19	4
,, ,, . . .	30	44	26	25	15	19	4
♀ Sevagherry	48	42	26	20	12	20	4
,, Foster Hill, Nilgherries . .	47	46	26	19	13	20	4
♂ Carnatic	37	49	25	22	14–13	18	4
,, ,, ...	36	50	25	20	16	19	4
♀ ,, ...	53	43	27	21	13	19	4–3
,, ,, ...	42	46	27	23	13–14	20	4
Hgr. ,, ...	35	46	27	20	14–13	20	4
,, ,, ...	34	45	24	20	15	21	5
,, ,, ...	34	46	27	19	13–14	18	4
♂ Ceylon	47	45	24	19	15–14	21	4–3

1. Length from snout to vent (in millimetres). 2. Scales and plates round middle of body. 3. Transverse series of ventral plates. 4. Gular scales in a straight line. 5. Femoral pores (right and left if differing). 6. Lamellæ under fourth toe. 7. Anterior upper labials (right and left if differing).

Habitat.—Peninsular India, as far north as S.E. Berar and Chanda. The type specimen, preserved in the Paris Museum, is from the Coast of Coromandel. Also recorded from Ceylon, on the authority of the Drs. Sarasin, but without indication of the locality.*

2. CABRITA JERDONII.

Cabrita jerdonii, Beddome, Madras Monthly Journ. Med. Sc. 1870, p. 34; Blanf. Journ. As. Soc. Beng. xxxix, 1870, p. 348, and xlviii, 1879, p. 112; Bouleng. Cat. Liz. iii, p. 71 (1887), and Faun. Ind., Rept. p. 173 (1890).

Body moderately depressed. Head moderately depressed, $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as broad, its depth equal to the distance between the centre of the eye and the tympanum, its length $3\frac{1}{2}$ to 4 times in length to vent in males, $3\frac{3}{4}$ to $4\frac{1}{5}$ times in females; snout obtusely pointed, with sharp canthus and feebly concave loreal region, as long as the postocular part of the head; a sharp keel below the eye. Pileus 2 to $2\frac{1}{4}$ times as long as broad. Neck as broad as or a little narrower than the head. The hind limb reaches the ear or between the ear and the eye in males, the collar or between the collar and the ear in females; foot $1\frac{1}{6}$ to $1\frac{1}{3}$ times as long as the head; digits feebly compressed. Tail $1\frac{3}{4}$ to $2\frac{1}{2}$ times as long as head and body.

Upper head-shields rugose with keels and granular asperities, frontal, parietals and interparietal each with two keels; nostril pierced between 3 shields; nasals forming a suture behind the

* *Cf.* F. Müller, Verh. Nat. Ges. Basel, viii, 1887, p. 286.

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rostral*; frontonasals as long as broad or broader than long, usually separated from each other by an azygos shield†; frontal as long as its distance from the end of the snout, $1\frac{2}{3}$ to 2 times as long as broad, narrower behind than in front; parietals longer than broad; interparietal as large as or a little smaller than the frontoparietals, sometimes nearly as broad as the parietals, $1\frac{1}{3}$ to $1\frac{2}{3}$ times as long as broad; occipital usually absent.‡ Two large supraoculars, what is usually the first being mostly broken up into 2 to 4 small shields, a fourth absent or very small and widely separated from the frontoparietal; 3 superciliaries, second very long; a series of granules between the supraoculars and the superciliaries. A single nasal, in contact with the first upper labial, followed by two superposed postnasals; anterior loreal shorter than the second; 4, rarely 3 or 5, upper labials anterior to the subocular, which is much narrower beneath than above and borders the mouth. 2 or 3 large, keeled upper temporals, the first the longest; temporal scales moderately large, hexagonal, strongly keeled; a narrow tympanic shield.

6 pairs of chin-shields, the 3 anterior in contact in the middle; gular scales large, imbricate, 14 to 18 in a straight line between the symphysis of the chin-shields and the ventral plates.

Scales large, rhombic and strongly keeled, posterior nearly as large as caudals, laterals much smaller than dorsals; ventral plates in 6 or 8 longitudinal and 19 to 23 transverse series; 26 to 30 scales and plates round the middle of the body. A large preanal plate, bordered by one or two semicircles of smaller plates, or two large plates, one in front of the other.

Scales on upper surface of tibia rhombic and keeled, a little smaller than the dorsals. 10 to 15 femoral pores on each side. Subdigital lamellæ bi- or tricarinate, 17 to 19 under the fourth toe.

Caudal scales strongly keeled, upper larger than lower, 16 to 22 in the fourth or fifth whorl behind the postanal granules.

Bronze brown above, with a whitish lateral streak from the superciliary edge to the base of the tail, and sometimes a second from the upper lip, through the tympanum, to the base of the hind limb; a series of black spots or cross-bars often present on each side of the back, above the dorsolateral streak; sides with black spots, sometimes small, sometimes very large; hind limbs and tail red or

* In a male from Rajpur the upper part of the nasal is produced backward, forming a suture with the prefrontal, the frontonasal being much reduced in consequence.

† Out of 14 specimens one has two small shields between the prefrontals, and in two the azygos shield is absent.

‡ Present, short and broad in two specimens (Rajpur and Godavery).

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reddish, at least in the young. Lower surface of head and body white, males usually with blue dots or spots on the lips and throat.

Measurements (in millimetres):	1.	2.	3.
From end of snout to vent	40	42	45
,, ,, ,, fore limb	19	16	19
Length of head	12	10	12
Width of head	7	6	8
Depth of head	5	5	5·5
Fore limb	17	15	17
Hind limb	27	25	30
Foot	14	12	16
Tail	86	77	105

1. ♂, Godavery. 2. ♀, Godavery. 3. ♂, Badrachalam.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.
♂ Rajpur, Bengal	40	27	21	18	14	18	4
,, Badrachalam, Godavery Valley	44	28	23	17	15	18	5–4
,, ,, ,,	43	28	20	17	15	17	4
,, Godavery Valley	40	28	21	15	14	19	4
,, ,,	40	28	22	16	13	18	4
,, ,,	39	28	19	17	14–13	19	4
,, ,,	39	28	20	16	14	19	4
,, ,,	35	26	19	14	13–12	17	4
,, ,,	32	28	22	15	10	17	3
,, ,,	30	29	23	15	12–13	17	4
♀ ,,	43	29	23	16	11	19	4
,, ,,	42	29	23	16	12–11	18	4
♂ Cuddapah	41	27	22	15	11	18	4
,, ,,	36	28	21	15	11–12	18	4
,, ,,	31	30	23	16	11	17	4
,, ,,	29	29	23	15	12	19	4

Habitat.—India, from S.W. Bengal to Cuddapah, Madras.

17. OPHIOPS.

Ophiops, Ménétr. Cat. Rais. p. 63 (1832); Dum. & Bibr. Erp. Gén. v, p. 257 (1839); Gray, Cat. Liz. p. 44 (1845); Günth. Rept. Brit. Ind. p. 72 (1864); Strauch, Mél. Biol. Ac. St. Pétersb. vi, 1867, p. 408; Schreib. Herp. Eur. p. 369 (1875); Lataste, Ann. Mus. Genova (2) ii, 1885, p. 126; Bouleng. Cat. Liz. iii, p. 72 (1887).

Amystes, Wiegm. Arch. f. Nat. 1835, ii, p. 1.

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Pseudophiops, Jerdon, Proc. As. Soc. Beng. 1870, p. 71.

Gymnops (non Cuv.), Blanf. Journ. As. Soc. Beng. xxxix, 1870, p. 351.

Chondrophiops, Blanf. op. cit. xlii, 1873, p. 144.

Head-shields normal. Nostril pierced between two, three or four nasals, well separated from the first upper labial. Lower eyelid fused with the upper, with a very large transparent disc. Collar feebly defined or absent in the middle. Dorsal scales rhombic, imbricate, and strongly keeled, usually large. Ventral plates imbricate, smooth. Digits more or less compressed, with sharply keeled lamellæ inferiorly. Femoral pores. Tail long, cylindrical.

South-Eastern Europe, South-Western Asia and India, North Africa.

The only character distinguishing this genus from the preceding is the fusion of the lower eyelid with the upper—a state of things which conveys the appearance of an absence of the eyelids, as believed by all earlier authors.* But, as I explained in 1887, what was supposed to be the cornea of the eye of *Ophiops* is the transparent disc of the lower lid, which is neither more nor less developed than in *Cabrita*. Although united with the upper, the lower eyelid is, however, not absolutely immovable. On touching the transparent disc in *O. occidentalis*, which I had alive, I observed this to be at once lowered, the upper half of the eye being then covered by the granular portion of the lid.

In all the species the parietal foramen is present and pterygoid teeth are absent.

Cabrita is clearly the connecting link between lizards with normal eyelids and *Ophiops*, and the Indian forms of both these genera are closely allied to one another, as is particularly striking when we compare *O. jerdonii* and *O. beddomii* with *Cabrita jerdonii*, or *O. microlepis* with *C. leschenaultii*. Although these species are certainly derived from the same original stock, the existing forms must be left out of consideration as regards direct descent, for the lack of the occipital in *Cabrita jerdonii* and the striation of the upper head-shields in *C.*

* "Palpebra inferior nulla, superioris tantummodo rudimenta," Ménétriès.—"Oculi palpebris destituti, capsula oculari instructi," Wiegmann.—"Pas de paupières," Duméril and Bibron.—"Eyelids none," Günther.

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leschenaultii are characters of greater specialization than are shown by the Indian *Ophiops* with which we are at present acquainted. As to the typical, Western species of the genus, *O. elegans* and *O. occidentalis*, the smooth upper head-shields also preclude their derivation from the existing species of *Cabrita*, whilst the agreement in many points with *Psammodromus* may be a case of convergence from a common stock sharing characters with *Nucras* and *Lacerta*.

Synopsis of the Species.

I. Snout feebly or moderately depressed, as long as postocular part of head; less than 50 scales and plates round middle of body, the lateral scales passing gradually into the ventral plates; toes feebly compressed.

A. Upper head-shields strongly rugose, keeled, or striated; 26 to 33 scales and plates round middle of body; 16 to 20 lamellæ under the fourth toe.

A single frontonasal, very rarely longitudinally bisected; principal supraoculars much broader than posterior part of frontal . . . . . *O. jerdonii*, Blyth, p. 201.

Two or three frontonasals; principal supraoculars not or but slightly broader than posterior part of frontal . *O. beddomii*, Jerd., p. 205.

B. Upper head-shields smooth or slightly rugose; 20 to 26 lamellæ under the fourth toe.

24 to 30 scales and plates round middle of body; superciliaries in contact with supraoculars, granules between them absent or reduced to a few . . . . . *O. occidentalis*, Blgr, p. 207.

28 to 49 scales and plates round middle of body; a series of granules between supraoculars and superciliaries . *O. elegans*, Mén., p. 211.

II. Snout much depressed, longer than postocular part of head; upper labials projecting, angular; 56 to 64 scales and plates round middle of body; lateral scales abruptly differentiated from the ventral plates; toes strongly compressed, with 21 to 24 lamellæ under the fourth . . . *O. microlepis*, Blanf., p. 222.

1. OPHIOPS JERDONII.

Ophiops jerdoni, Blyth, Journ. As. Soc. Beng. xxii, 1853, p. 653; Stoliczka, op. cit. xli, 1872, p. 89, and Proc. As. Soc. Beng. 1872, p. 74; Bouleng. Cat. Liz. iii, p. 73 (1887), and Faun. Ind., Rept. p. 174 (1890).

Tropidosaura jerdoni, Theobald, Cat. Rept. As. Soc. Mus. p. 22 (1868).

Pseudophiops jerdoni, Jerdon, Proc. As. Soc. Beng. 1870, p. 71.

Pseudophiops theobaldi, Jerdon, l.c.

Cabrita leschenaultii (non M.-Edw.), Murray, Zool. Sind, p. 347 (1884).

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Calosaura chaperi, Sauvage, Bull. Soc. Philom. (7) viii, 1884, p. 142.
Cabrita chaperi, Bouleng. Cat. Liz. iii, p. 71.

Body moderately depressed. Head moderately depressed, $1\frac{1}{2}$ to $1\frac{3}{4}$ times as long as broad, its depth equal to the distance between the centre of the eye and the tympanum, its length $3\frac{1}{2}$ to $4\frac{1}{3}$ times in length to vent in males, $4\frac{1}{3}$ to $5\frac{1}{4}$ times in females; snout obtusely pointed, with sharp canthus and feebly concave loreal region, as long as the postocular part of the head; a sharp keel below the eye. Pileus 2 to $2\frac{1}{2}$ times as long as broad. Neck as broad as or a little narrower than the head. The hind limb reaches the shoulder or between the shoulder and the ear, rarely the ear, in males, the wrist, the elbow, or the axil in females; foot $1\frac{1}{5}$ to $1\frac{1}{3}$ times as long as the head; digits feebly compressed. Tail $1\frac{1}{2}$ to $2\frac{1}{4}$ times as long as head and body.

Upper head-shields strongly and coarsely striated, or with keels and granular asperities, sometimes nearly smooth in the very young; nostril pierced between 3 or 4 shields; nasals forming a suture behind the rostral; frontonasal broader than long*; prefrontals longer than broad, forming a median suture or separated by one or two agygos shields†; frontal as long as or a little longer than its distance from the end of the snout, $1\frac{1}{2}$ to 2 times as long as broad, narrower behind than in front; parietals longer than broad; interparietal $1\frac{1}{3}$ to 2 times as long as broad, in contact with a shorter but often broader occipital. 4 supraoculars, first and fourth small, rarely divided into two, first in contact with the frontal, with rare exceptions, fourth often separated from the frontoparietal; 3, rarely 4, superciliaries, second very long; a complete series of granules between the supraoculars and the superciliaries.‡ Nasal usually divided into an upper and a lower, sometimes single, followed by two superposed postnasals§; anterior loreal shorter than the second; 4, rarely 3 or 5,‖ upper labials anterior to the subocular, which is much narrower beneath than above and borders the mouth. 2 or 3 large upper temporals, anterior usually the longest and usually in contact with the fourth supraocular; temporal scales moderately large, hexagonal,

* Longitudinally bisected in a young from Rutnagherry; Stoliczka has observed a similar division in 3 specimens (out of 20) from Agra.

† Out of 78 specimens examined 41 have the prefrontals in contact, 33 have them separated by one shield, and 4 by two shields.

‡ A second, incomplete series in a young from the Punjab.

§ In a half-grown specimen from Cutch the nostril is pierced between an upper and a lower nasal and a single postnasal formed of the fusion of the two normal shields.

‖ 3 or 3–4 in 5 specimens, 5–4 in 4 (Thar and Kotree), 5–5 in one (Thar).

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strongly uni-, bi-, or tricarinate; tympanic shield usually small or absent, sometimes rather large.

5 or 6 pairs of chin-shields, the three or two * anterior in contact in the middle; gular scales large, flat, imbricate, 14 to 18 in a straight line between the symphysis of the chin-shields and the ventral plates; no gular fold; collar indistinct in the middle, free and with 2 or 3 large plates on the sides.

Scales large, rhombic and imbricate from the nape, gradually increasing in size to the tail, with strong keels, straight or slightly oblique, those on the nape sometimes bi- or tricarinate; lateral scales as large as or a little smaller than the dorsals, passing gradually into the ventral plates, which form 6 or 8 longitudinal and 23 to 29 transverse series (23 to 27 in males, 26 to 29 in females); 28 to 33 scales and plates round the middle of the body. A large preanal plate, bordered by one or two semicircles of smaller plates, or two large preanal plates, one in front of the other.

Scales on upper surface of tibia rhombic and keeled, as large as or a little smaller than the dorsals. 7 to 12, rarely 6, femoral pores on each side. Subdigital lamellæ bi- or tricarinate, 17 to 20 under the fourth toe.

Caudal scales strongly keeled, upper larger than lower, 16 to 20 in the fourth or fifth whorl behind the postanal granules.

Yellowish grey or brown above,† with two yellowish white, dark-edged streaks on each side, the upper from the superciliary edge to the tail, the lower from the upper lip, through the tympanum, to the base of the hind limb; the space between the two lateral streaks often with small black spots; sometimes three series of large black spots or cross-bars on each side, one above, one between, and one below the light streaks; tail often reddish. Lower parts white. The specimen from Bellary (type of *Calosaura chaperi*, Sauv.) dark brown, spotted with black all over, the white dorsolateral streak very distinct and the lateral streak broken up into a series of round spots.

Measurements (in millimetres):

	1.	2.	3.	4.
From end of snout to vent . .	41	36	47	41
„ „ „ fore limb .	15	15	15	13
Length of head	10	10	10	8·5
Width of head	6	6	6	5
Depth of head	4	4·5	5	4

* In 10 specimens; 3 on one side and 2 on the other in one (Bellary).

† Fresh specimens from Agra are described by Stoliczka as bronze brown, sometimes with an olive and often a greenish metallic tint.

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	1.	2.	3.	4.
Fore limb	14	14	15	12
Hind limb	22	25	23	20
Foot	13.	13	12	11
Tail	82	81	—	67

1. ♂, Bellary. 2. ♂, Kotree. 3. ♀, Rutnagherry. 4. ♀, Bellary.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.
♂ Quetta, Baluchistan . . .	34	28	25	16	10–9	20
„ Alpine Punjab	38	28	27	17	10–9	20
„ Kotree, Sind	36	28	24	15	9–8	20
♀ Karachi	47	28	27	16	8	20
„ „	37	29	28	16	8–7	19
„ Cutch	36	29	26	15	7	20
„ Rutnagherry, Bombay . . .	47	31	26	15	7–8	18
„ „ „ . . .	42	30	26	16	8	18
♂ Bellary, Madras (type of *Calosaura chaperi*)	38	31	23	16	10–9	18
„ Bellary district	41	30	24	16	9	18
„ „	40	28	25	16	9	18
„ „	39	29	23	16	10–11	18
„ „	39	29	25	17	10	18
„ „	37	31	23	16	10–9	19
„ „	37	32	26	16	12	18
„ „	36	29	27	18	12	19
♀ „	46	33	27	18	8	?
„ „	45	30	29	15	8–7	19
„ „	42	28	27	18	6–7	19
„ „	42	30	29	17	9	20
„ „	41	31	28	17	8–7	17
„ „	39	30	27	14	8–7	18
„ „	35	33	28	18	8–9	19
♂ Carnatic, Madras	45	30	26	16	9–10	20
„ „ „	44	30	25	16	10	17
„ „ „	38	32	25	17	9	19
♀ „ „	36	28	26	16	7	19

Tables for this genus as in *Cabrita*, p. 197.

Habitat.—Baluchistan (Quetta), Punjab, N.W. Provinces (Agra), Sind, Cutch, Central India (Sangor, Mhow), Bombay Presidency (Rutnagherry), Madras Presidency.

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This species has much in common, in form, scaling, and coloration, with *Cabrita jerdonii*, and, were it not for the generic distinction based upon the structure of the eyelids, would be regarded as closely allied. It cannot, however, be derived from it, as the presence of an occipital is a feature of greater generalization. We have therefore to imagine, as the direct ancestor of *O. jerdonii*, a species of *Cabrita*, now probably extinct, very similar in all respects to *C. jerdonii*, but with an occipital shield.

2. OPHIOPS BEDDOMII.

Pseudophiops beddomii, Jerdon, Proc. As. Soc. Beng. 1870, p. 72.
Ophiops monticola, Beddome, Madras Journ. Med. Sc. 1870, p. 35.
Ophiops beddomii, Stoliczka, Journ. As. Soc. Beng. xli, 1872, p. 90; Bouleng. Cat. Liz. iii, p. 74, pl. iii, fig. 3 (1887), and Faun. Ind., Rept. p. 174, fig. (1890).

Body moderately depressed. Head moderately depressed, $1\frac{1}{2}$ to $1\frac{3}{5}$ times as long as broad, its depth equal to the distance between the centre of the eye and the tympanum, its length $3\frac{3}{4}$ to 4 times in length to vent; snout obtusely pointed, with sharp canthus and feebly concave loreal region, as long as the postocular part of the head; a sharp keel below the eye. Pileus twice as long as broad. Neck as broad as or a little narrower than the head. The hind limb reaches the shoulder or the collar in males, the axil in females; foot a little longer than the head; digits feebly compressed. Tail $1\frac{2}{3}$ to 2 times as long as head and body.

Upper head-shields rugose with keels and granular asperities, frontal, parietals, and intraparietal each with two keels; nostril pierced between 3 shields; nasals forming a suture behind the rostral; frontonasal divided into 2 small shields, which are about as large as the upper part of the nasals, sometimes with a third shield between them; prefrontals longer than broad, usually separated by a narrow shield, rarely by 2, one in front of the other; frontal as long as its distance from the end of the snout, $1\frac{2}{3}$ to 2 times as long as broad, of nearly equal width throughout, or a little narrower posteriorly; parietals longer than broad; interparietal $1\frac{1}{3}$ to 2 times as long as broad, in contact with a much shorter occipital, which may be a little broader, and the rounded posterior border of which projects beyond the parietals. 4 supraoculars, first in contact with the frontal and usually broken up into 2 or 3 small keeled shields, fourth usually

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also divided into 2 or 3 and often separated from the frontoparietals; the two principal supraoculars not or but slightly broader than the posterior part of the frontal; 3 superciliaries, rarely 4, second very long; a complete series of granules between the supraoculars and the superciliaries, exceptionally two. A single nasal, in contact with the first upper labial, followed by 2 superposed postnasals; anterior loreal shorter than the second; 4 upper labials* anterior to the subocular, which is much narrower beneath than above and borders the mouth. 2 large, keeled upper temporals, anterior the longer and usually in contact with the fourth supraocular; temporal scales moderately large, hexagonal, keeled; a rather large tympanic shield.

5 or 6 pairs of chin-shields, the two or three anterior in contact in the middle; gular scales large, flat, imbricate, 15 to 20 in a straight line between the symphysis of the chin-shields and the ventral plates; no gular fold; collar indistinct in the middle, free and with 2 or 3 large plates on the side.

Scales large, rhombic and imbricate from the nape, generally increasing in size to the tail, with strong keels, straight or slightly oblique, a few on the nape sometimes bicarinate; lateral scales as large as or a little smaller than the dorsals, passing gradually into the ventral plates, which are in 6 or 8 longitudinal and 24 to 29 transverse series (24 to 27 in males, 29 in females); 26 to 32 scales and plates round the middle of the body. A large preanal plate, bordered by one or two semicircles of smaller plates, or two large preanal plates, one in front of the other.

Scales on upper surface of tibia rhombic and keeled, as large as or a little smaller than the dorsals. 8 to 13 femoral pores on each side, usually 9 to 11. Subdigital lamellæ bi- or tricarinate, 16 to 19 under the fourth toe.

Caudal scales strongly keeled, upper larger than lower, 16 to 20 in the fourth or fifth whorl behind the postanal granules.

Brown above, with two yellowish white streaks on each side, the upper, which is exceptionally absent,† from the superciliary edge to the tail, the lower, better defined and often black-edged, from the upper lip, through the tympanum, to the base of the hind limb; the space between the two light streaks darker than the back, or closely spotted with black; sides of belly sometimes black, with blue spots; tail more or less reddish; lower parts white.

* 5 on one side in a female from the Brumagherries.

† Contrary to the tendency in the other species of the genus, which is for the lower lateral streak to disappear before the upper.

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Measurements (in millimetres):

	♂	♀
From end of snout to vent . . .	36	33
„ „ „ fore limb . .	13	11
Length of head	9	8
Width of head	5·5	5
Depth of head	4	4
Fore limb	12	12
Hind limb	19	17
Foot	10	9
Tail	62	55

Particulars of Specimens Examined.

		1.	2.	3.	4.	5.	6.
♀	Brumagherry Hills (type) . .	33	28	29	18	10–11	19
♂	„ (type of *O. monticola*)	36	26	27	18	9	16
„	„ „	36	28	27	18	11	17
„	„ „	36	28	27	18	13–12	19
„	„ „	32	28	24	15	10	17
„	„ „	32	29	26	20	11	18
♀	„ „	36	28	29	19	11–10	18
„	„ „	33	32	29	19	9	18
„	„ „	33	29	29	18	10–11	19
„	„ „	31	30	29	18	10	16
♂	S. Canara	32	26	24	16	9–8	19

Habitat.—Hills of Western India: Brumagherry Hills in Wynaad, about 1500 m., South Canara, and Khandala, near Bombay.

This species is very near the preceding, but more advanced in the disintegration of the shields on the upper surface of the snout and less in the shape of the frontal shield.

3. OPHIOPS OCCIDENTALIS.

Ophiops elegans (non Ménétr.), Boettg. in Kobelt, Reis. Alg. Tunis. p. 467 (1885).

Ophiops occidentalis, Bouleng. Cat. Liz. iii, p. 75, pl. iii, fig. 2 (1887), and Tr. Zool. Soc. xiii, 1891, p. 134; Werner, Verh. Zool.-bot. Ges. Wien, xliv, 1894, p. 82; Doumergue, Erp. Oran. p. 204, pl. xv, fig. 3 (1901); Werner, Zool. Jahrb., Syst. xxvii, 1909, p. 609.

? Algiroides hidalgoi, Boscá, Bol. Soc. Esp. H. N. xvi, 1916, p. 294.

Body moderately depressed. Head feebly depressed, $1\frac{2}{3}$ to $1\frac{1}{2}$ times as long as broad, its depth equal to the distance between the anterior

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corner of the eye and the tympanum, its length $3\frac{1}{2}$ to 4 times in length to vent in males, $3\frac{2}{3}$ to $4\frac{1}{2}$ times in females; snout obtusely pointed, with sharp canthus and concave loreal region, as long as the postocular part of the head; a lanceolate concavity on the upper surface of the snout, extending on the frontal shield; a sharp keel below the eye, on the freno-ocular and subocular shields. Pileus 2 to $2\frac{1}{3}$ times as long as broad. Neck as broad as the head. The hind limb reaches the ear or between the shoulder and the ear in males, the elbow, the axil, or the shoulder in females; foot $1\frac{1}{3}$ to $1\frac{1}{2}$ times as long as the head; digits feebly compressed. Tail $1\frac{1}{2}$ to $2\frac{1}{4}$ times as long as head and body.

Upper head-shields smooth; nostril pierced between 2, 3, or 4 shields*; nasals usually forming a short suture behind the rostral, rarely narrowly separated†; frontonasal broader than long; prefrontals as long as broad or a little longer than broad, forming an extensive median suture; frontal $1\frac{1}{2}$ to 2 times as long as broad, as long as or a little longer than its distance from the end of the snout, much narrower behind than in front, the lateral borders concave; parietals a little longer than broad; interparietal small or very small, often followed by a second small shield‡; occipital very small and widely separated from the interparietal, or absent. 4 supraoculars, first small and usually in contact with the frontal, second longer than the third, fourth small but usually larger than the first; 4 superciliaries, rarely 5, second much longer than the others, all in contact with the supraoculars; sometimes 1, 2, or 3 granules between them§; Two superposed postnasals, rarely one; anterior loreal shorter than the second; 4‖ upper labials anterior to the subocular, which is much narrower beneath than above and borders the mouth. Two large upper temporals, anterior the longer and usually in contact with the fourth supraocular; temporal scales small, smooth or feebly keeled; a large, opercle-like tympanic shield.¶

6, rarely 5,** pairs of chin-shields, the 3, rarely 2, anterior in contact in the middle; gular scales large, flat, imbricate towards the collar, which is very indistinct, except at the sides, and composed of 6 to 10

* Between two shields, followed by two superposed postnasals, in 14 specimens; between four shields (two nasals and two postnasals) in 22; between three (there being only one postnasal) in 3.

† Male from Tafrent, male from Tunis (Paris Museum).

‡ Which is rarely in contact with the occipital.

§ 5-3 in a male from Batna; 4-6 in a female from Tunis (Paris Museum).

‖ Exceptionally 5, according to Doumergue.

¶ Divided into two in a male from Batna.

** Female from Portes-de-fer. 5-6 in a male from Tunis (Paris Museum).

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scales; no gular fold; 14 to 18 gular scales in a straight line, including the median collar-plate.

Dorsal scales very large and sharply keeled, larger than the laterals, and but little if at all smaller than the caudals. Ventral plates broader than long, in 6 or 8 longitudinal series according as to whether or not the outer, smooth but smaller plate is reckoned as a dorsal scale, and 23 to 29 transverse series (23 to 26 in males, 25 to 29 in females). 26 to 30 scales and plates round the middle of the body.* Preanal plate rather large, bordered by two or three semicircles of smaller plates.

Scales on upper surface of tibia rhombic and keeled, small. 6 to 10 femoral pores on each side, usually 7 to 9. Subdigital lamellæ bicarinate, 19 to 23 under the fourth toe.

Caudal scales strongly keeled, upper larger than lower, 14 to 18 in the fourth or fifth whorl behind the postanal granules.

Young olive with two whitish streaks on each side, the upper from the superciliary edge to the base of the tail, the lower from the upper labials, through the ear, to the groin. Adult bronzy brown or olive above, usually with two light streaks on each side, as in the young, or at least with traces of them, the dorsolateral edged with dark brown or blackish on the inner side, often with a dark vertebral streak on the nape; sides brown or greenish, often with more or less crowded small blackish spots. Lower parts white.

Measurements (in millimetres):

	1.	2.	3.	4.
From end of snout to vent	44	41	45	49
„ „ „ fore limb	17	16	16	16
Length of head	11	11	10	11
Width of head	8	7	7	7
Depth of head	6	5	5	5
Fore limb	17	16	16	16
Hind limb	27	26	25	24
Foot	15	15	14	14
Tail	98	85	65	82

1. ♂, Youkous (type). 2. ♂, Batna. 3. ♀, Portes de Fer (type). 4. ♀, Tamesmida.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.
♂ Kralfalla, Prov. Oran	40	26	24	18	9	21
„ Portes de Fer, Algiers	42	30	25	16	7–8	20

* 24 to 28 in specimens from Cyrenaica, according to Werner.

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	1.	2.	3.	4.	5.	6.
♀ Portes de Fer, Algiers (type) . .	45	27	26	17	8	20
♂ Youkous (type)	44	28	26	15	7	20
„ Tafrent	39	28	24	15	8	22
♀ „	42	26	27	15	7	21
♂ Batna	45	27	25	16	8	22
„ „	45	26	24	15	9	21
„ „	42	28	25	16	9	20
„ „	41	28	24	17	7–6	21
„ „	40	26	25	16	8–9	20
♀ „	39	28	27	15	8	20
♂ „	48	27	24	17	8	20
„ „	41	29	25	15	7	20
„ „	40	27	24	16	9	21
♀ „	42	27	29	15	7–8	20
„ „	28	28	26	16	8	22
„ Wed Sedeur	40	26	25	14	7	20
♂ Tunis, **P.M.**	44	26	24	16	7	20
„ „ „	44	27	25	15	9–8	21
„ „ „	41	27	24	17	8	20
„ „ „	37	26	24	17	6–7	21
„ „ „	36	29	24	15	7	19
♀ „ „	42	27	27	17	7	19
„ „ „	37	26	27	14	8–9	19
„ „ „	36	29	28	16	6	21
♂ Mnila, nr. Tunis	35	28	23	15	8	20
♀ Temasmida, Tunisia	49	28	27	17	7–8	21
„ Feriana „	42	27	27	15	7–6	22
„ Hadedj des Matmata, Tunisia (type) .	38	26	27	18	8	23
♂ Susa, Tunisia (type)	43	29	24	18	9–10	23
„ „ „ „	41	30	24	15	8	21
♀ Tunisia, **L.M.**	40	26	28	16	7	20
„ „ „	38	26	25	14	7–6	20

Habitat.—Algeria (Tell and High Plateaux), Tunisia, and Tripoli (Cyrenaica). Its reported occurrence at Biskra (*fide* Boettger) is, as pointed out by Werner, probably due to a mistake.

Very closely allied to *O. elegans* and evidently derived from the same common ancestor, but less advanced in the absence of a series of granules bordering the supraoculars, and more so in the generally larger size of the dorsal scales and the greater reduction or loss of the occipital shield.

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As mentioned in Vol. I, p. 339, I cannot help thinking Boscá's *Algiroides hidalgoi*, said to be from San Ildefonso, Sierra de Guadarrama, Central Spain, will prove to be identical with this species.

4. OPHIOPS ELEGANS.

Ophiops elegans, Ménétr. Cat. Rais. p. 63 (1832); Eichw. Reise Kasp. Meer. i, pt. 2, p. 744 (1837); Dum. & Bibr. Erp. Gén. v, p. 259, pl. liii, fig. 1 (1839); Eichw. Faun. Casp.-Cauc. p. 78, pl. xii, figs. 1–5 (1841); Berth. Abh. Ges. Götting. i, 1840, p. 56, pl. i, figs. 4, 5; Gray, Cat. Liz. p. 44 (1845); Anders. Proc. Zool. Soc. 1872, p. 374; Schreib. Herp. Eur. p. 372 (1875); Blanf. Zool. E. Persia, p. 367 (1876); Boettg. Ber. Senck. Ges. 1879–80, p. 174, and in Radde, Faun. Flor. Casp.-Geb. p. 48 (1886); Bouleng. Cat. Liz. iii, p. 75 (1887); Boettg. Sitzb. Ak. Berl. 1888, p. 165; Bouleng. Faun. Ind., Rept. p. 175 (1890), and Journ. Linn. Soc. xxvii, 1899, p. 378; Werner, Zool. Jahrb., Syst. xix, 1903, p. 334; Nikolsky, Herp. Ross. p. 141 (1905); Werner, Zool. Jahrb., Syst. xxvii, 1909, p. 609; Schreib. Herp. Eur., Ed. 2, p. 350 (1912); Nikolsky, Herp. Caucas. p. 92 (1913); Barbour, Proc. N. Engl. Zool. Club, v, 1914, p. 85; Bouleng. Ann. & Mag. N. H. (9) ii, 1918, p. 158.

Amystes ehrenbergii, Wiegm. Arch. f. Nat. 1835, ii, p. 1.

? *Algira punctata*, Gray, Ann. N. H. i, 1838, p. 283.

Ophiops macrodactylus, Berth. l.c.; Gray, Cat. Liz. p. 44.

Gymnops meizolepis, Stoliczka, Proc. As. Soc. Beng. 1872, p. 124.

Ophiops meizolepis, Blanf. op. cit. p. 369, pl. xxv, fig. 2.

Ophiops schlueteri, Boettg. Ber. Senck. Ges. 1879–80, p. 176, pl. iii, fig. 3; Bouleng. Cat. l.c. p. 77; Annandale, Proc. As. Soc. Beng. (2) i. 1905, p. 141.

Ophiops elegans, var. *schlueteri*, Bouleng. Ann. & Mag. N. H. (6) ii, 1888, p. 505, and (9) ii, 1918, p. 161.

Ophiops elegans, vars. *ehrenbergii, persicus, mizolepis*, Bouleng. l.c. 1918, pp. 159, 160.

As this species varies considerably in the lepidosis according to districts, the following description is taken, for precision's sake, from one of the types and from specimens from Central Asia Minor (Angora, Kaisarieh, Albistan, Giaour Dagh), of which I have examined a large series, and which represent the typical form in the restricted sense.* Notes on the specimens from other parts of the extensive range of this

* *Ophiops elegans* was founded on specimens from Eastern Transcaucasia, in which, according to Boettger, the number of scales and plates round the body varies between 34 and 40. I have examined one of the types, from Baku, sent to the Paris Museum by Ménétriès.

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species will follow under the respective ill-defined varieties into which the species may be divided.

Body moderately depressed. Head feebly depressed, $1\frac{1}{2}$ to $1\frac{3}{5}$ times as long as broad, its depth equal to the distance between the anterior corner of the eye and the tympanum, its length $3\frac{3}{4}$ to $4\frac{1}{2}$ times in length to vent in males, 4 to $4\frac{2}{3}$ times in females; snout obtusely pointed, with the nasals sometimes a little swollen, with sharp canthus and concave loreal region, as long as or a little longer than the post-ocular part of the head; a lanceolate concavity on the upper surface of the snout, extending on the frontal shield; a sharp keel below the eye, on the freno-ocular and subocular shields. Pileus 2 to $2\frac{1}{4}$ times as long as broad. Neck as broad as the head. The hind limb reaches the ear or between the shoulder and the ear in males, the axil, the shoulder, or the collar in females; foot $1\frac{1}{3}$ to $1\frac{3}{5}$ times as long as the head; digits feebly compressed. Tail $1\frac{3}{4}$ to $2\frac{1}{4}$ times as long as head and body.

Upper head-shields smooth or feebly rugose; nostril pierced between 2 or 4 shields; nasals forming a suture behind the rostral; frontonasal broader than long; prefrontals as long as broad or a little longer than broad, forming a median suture, rarely separated by an azygos shield; frontal as long as or a little longer than its distance from the end of the snout, $1\frac{1}{2}$ to 2 times as long as broad, much narrower behind than in front, the lateral borders concave; parietals as long as broad or a little longer than broad; interparietal narrow and elongate, usually in contact with a small or very small occipital, which is rarely a little broader; sometimes the two shields are separated by the interparietals meeting on the median line, or by the intercalation of one or two small shields; in one specimen only the occipital is absent. 4 supraoculars, first small and in contact with the frontal, second and third equal or second a little the longer, fourth as large as or a little larger than the first; 4 superciliaries, rarely 5, second longest; a complete series of granules between the supraoculars and the superciliaries. Two superposed postnasals; anterior loreal shorter than the second; 4, very rarely 3, upper labials anterior to the subocular, which is much narrower beneath and nearly always* bordering the mouth, sometimes very narrowly, its lower border $\frac{1}{8}$ to $\frac{1}{3}$ the length of the upper. Two large upper temporals, anterior the longer and usually in contact with the fourth supraocular; temporal scales small,† smooth or feebly keeled; a large tympanic shield, sometimes opercle-like.

* Only one exception (male from Angora), in which it forms an angle wedged in between the fourth and fifth upper labials.

† According to Boettger, there are 50 to 55 scales in the specimens from Eastern Transcaucasia. I count 34 to 63 in those from Angora, as against 27 to 50 in those from Smyrna; 54 in the type specimen from Baku.

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6, rarely 7, pairs of chin-shields, the three anterior, exceptionally 4 or 2, in contact in the middle; gular scales large, flat, imbricate except the anterior, 16 to 19 in a straight line in the middle; gular fold absent or very feebly marked. Collar free only on the sides.

Dorsal scales gradually increasing in size from the nape to the tail, with strong keels forming oblique lines, the laterals as large or a little smaller, larger and smooth towards the ventral plates, which are broader than long and in 6 longitudinal and 26 to 32 transverse series; by reckoning as ventral plates the smooth lateral scales which are of the same length, the ventral plates may be described as in 8, or sometimes even 10 longitudinal series; 32 to 41 scales and plates round the middle of the body, usually 34 to 40.* Usually a large preanal plate, bordered by one or two semicircles of smaller plates or scales; the preanal region sometimes covered with small plates of nearly equal size.

Scales on upper surface of tibia rhombic and keeled, small. 9 to 12 femoral pores on each side, rarely 7, 8, or 13. Subdigital lamellæ bi- or tricarinate, 20 to 25 under the fourth toe.

Caudal scales strongly keeled, upper larger than lower and much larger than the dorsals, 16 to 24 in the fourth or fifth whorl behind the postanal granules.

Yellowish grey, brown, or olive above, usually with two whitish streaks on each side, the upper from the superciliary edge to the tail, the lower from the upper lip, through the tympanum, to the base of the hind limb; these light streaks usually bordered by black spots, which may be confluent into streaks; a black vertebral streak often present on the nape. In some adult specimens the light streaks are absent, and the black spots are irregularly distributed or show a tendency to form wavy cross-bars. Tail often reddish in the distal half. Lower parts white.

Measurements (in millimetres):

	1.	2.	3.	4.	5.
From end of snout to vent . .	46	55	48	51	47
„ „ „ fore limb .	16	20	17	18	16
Length of head	11	14	11	11	11
Width of head	7	9	7	7	7
Depth of head	6	7·5	6	6	6
Fore limb	16	21	18	17	18

* Having counted the scales and plates round the middle of the body in 70 specimens from Angora, I find 16 with 36, 12 with 37, 11 with 38, 8 with 40, 7 with 39, 6 with 35, 6 with 34, 2 with 33, 1 with 32 and 1 with 41.

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	1.	2.	3.	4.	5.
Hind limb	27	38	31	29	30
Foot	15	20	17	16	16
Tail	90	102	95	92	95

1. ♂, Baku (type). 2. ♂, Kaisarieh. 3. ♂, Angora. 4. ♀, Angora. 5. ♀, Kaisarieh.

Habitat.—The continuous range of *Ophiops elegans* extends from the Bosphorus and Transcaucasia to Samos and the Southern Sporades, Persia, Mesopotamia, Palestine, and the Sinaitic Peninsula. The species also occurs in three outlying districts, viz. in Greece at Kryoneri, Acarnania, opposite Patras, according to Werner (Wiss. Mitth. Bosn. Herzeg. vi, 1899, p. 832), Dernah in Cyrenaica,* and the North-Western Punjab (*O. mizolepis*, Stol.).

The typical form appears to be confined to Transcaucasia, Armenia, and Central Asia Minor. The types (Petrograd and Paris Museums) are from Baku.

Var. EHRENBERGII, Wiegmann.

As already pointed out by Boettger, the specimens from Western Asia Minor and the Southern Sporades differ from the typical form in having larger scales on an average. The same form occurs also in Syria (*Amystes ehrenbergii*, Wiegm.), alongside with the small-scaled specimens (*O. schlueteri*, Boettg.), and on the Euphrates.

The head is $1\frac{1}{3}$ to $1\frac{1}{2}$ times as long as broad and may be contained 5 times (females) in length to vent. The hind limb reaches the collar or the ear, or between these two points, in males, the elbow or beyond, as far as between the collar and the ear in females.

As regards the head-shields, I note the following exceptions to the description given above of the typical form: The frontal may be $2\frac{1}{4}$ times as long as broad†; 3 or 5 upper labials anterior to the subocular.‡ The occipital is small or very small, and often separated from the interparietal. The lower border of the subocular measures $\frac{1}{3}$ to $\frac{1}{2}$ the length of the upper, rarely $\frac{1}{4}$.

15 to 20 gular scales in a straight line. 28 to 34 scales and plates round the middle of the body, the posterior dorsal scales sometimes

* Except for Werner's statement that the scales and plates number 36–38 round the body and the femoral pores 8–10 in the Cyrenaica specimens, we have no information on which to refer these outposts to any one of the varieties in particular.

† In a female from Brumana, Lebanon.

‡ On the right side in a female from Jerusalem; a female from the Meander Valley has only three upper labials on each side.

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nearly as large as the upper caudals, forming 7 to 10 longitudinal series between the hind limbs. 14 to 20 caudal scales in the fourth or fifth whorl. 8 to 12 femoral pores on each side, usually 9 to 11.

The coloration is the same as in the typical form, but the sides are often greenish in males.

Measurements (in millimetres):

	1.	2.	3.	4.
From end of snout to vent	53	50	50	45
,, ,, ,, fore limb	20	19	16	16
Length of head	12	12	10	10
Width of head	9	8	7	6·5
Depth of head	6·5	6	5	5
Fore limb	21	18	16	16
Hind limb	37	33	30	27
Foot	17	18	16	15
Tail	102	113	95	78

1. ♂, Constantinople. 2. ♂, Mt. Hermon. 3. ♀, Smyrna. 4. ♀, Meander Valley.

Var. PERSICUS, Boulenger.

The specimens from Persia and the neighbouring parts of Mesopotamia, N.E. of Bagdad, are distinguished by the larger occipital, which may be twice or twice and a half the width of the interparietal, and the more extensive share taken by the subocular in the border of the mouth, its lower border measuring $\frac{1}{3}$ to $\frac{1}{2}$ the length of the upper, rarely only $\frac{1}{4}$. The scales are a little larger on an average, there being 28 to 38 round the middle of the body, including the ventrals, usually 31 to 36. 23 to 30 transverse series of ventral plates, usually 24 28. 8 to 11, rarely 12, femoral pores on each side.

The hind limb rarely reaches the ear.

The collar is often more distinct than in the typical form, and sometimes free across the throat.

The black vertebal streak, instead of being confined to the nape, sometimes extends along the whole body; the space between the light lateral streaks is sometimes red.*

Measurements (in millimetres):

	1.	2.	3.	4.
Front end of snout to vent	58	50	53	45
,, ,, ,, fore limb	21	18	19	15
Length of head	14	13	12	10
Width of head	9	8	7·5	7

* Specimens from Seir, West of L. Urmi, and S. of Ispahan (2400 m.).

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	1.	2.	3.	4.
Depth of head	8	6	6	5
Fore limb	20	19	17	15
Hind limb	35	36	28	27
Foot	19	20	16	15
Tail	128	105	90	—

1. ♂, Saperghan. 2. ♂, Niriz. 3. ♀, Saperghan. 4. ♀, Karman.

Habitat.—*Ophiops elegans* occurs over the greater part of Persia, but is apparently absent from the Elburz Mountains, whilst in the south it is found only between 1000 and 3000 m. altitude, according to Blanford.*

Var. MIZOLEPIS, Stoliczka.

A single specimen from the low country S.W. of Kalabagh on the Indus has been made the type of a distinct species, and even referred to a separate genus on account of the presence of a single postnasal instead of two. I have not seen the specimen, stated to have 34 scales and plates round the body and 12 femoral pores on each side, but there is nothing in the original description to warrant a separation from *O. elegans*, and I should have been inclined to regard the presence of one postnasal instead of two as an individual peculiarity, such as I have noted in *O. occidentalis*, were it not that Blanford has rediscovered the same form at Basra, Mesopotamia, where it is said to occur in abundance, and where the character appears to be fixed.† It is also noteworthy that the only two specimens from Haifa in Palestine examined by Boettger are distinguished from all other Syrian individuals by the same character. In view of the constancy of the single postnasal in individuals from certain localities, I retain *O. mizolepis* under a varietal name.

I have examined two of Blanford's Basra specimens as well as two recently obtained at the same place by Col. Wall,‡ also 2 from the Felujah-Ramadieh Road (C. L. Boulenger), 9 from the banks of the Euphrates, near Suk esh Shuyuk, and 2 from Amara, Mesopotamia, received from Capt. P. A. Buxton; except for the presence of three shields bordering the nostril, I cannot distinguish them from the var. *ehrenbergii*.

* The altitude of 3000 m. is also reached on Mt. Hermon by the var. *ehrenbergii* (Festa Collection in Turin Museum).

† According to Blanford it occurs as a rare exception in S. Persia: "In two specimens . . . the lower nasal is joined to the lower postnasal, so that the nasal shields resemble those in *Chondrophiops* [= *Gymnops*] or *Eremias*."

‡ Preserved in the Collection of the Bombay Natural History Society.

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Measurements (in millimetres) of specimens from Basra:

	♂	♀
From end of snout to vent	48	44
„ „ „ fore limb	17	15
Length of head	12	10
Width of head	8	6
Depth of head	6	5
Fore limb	20	16
Hind limb	34	26
Foot	18	15

The known habitat of the var. *mizolepis* is Palestine (Haifa), Mesopotamia (Basra, Amara, Euphrates), and the Punjab (low country S.W. of Kalabagh).

Var. SCHLUETERI, Boettger.

This is the most distinct of the various forms grouped under *O. elegans*, and one might feel inclined to regard it as a valid species. There is, however, such an overlap in the number of scales as compared with the typical form and no constancy in the other characters pointed out in the original description, that it seems better to treat it as a variety completely connected with the typical form and the var. *ehrenbergii*.

The proportions are the same as in the var. *ehrenbergii*, but the dorsal scales are smaller, the posterior always much smaller than the basal caudals, forming 10 to 14 longitudinal series between the hind limbs; 38 to 49 scales and plates round the middle of the body, usually 40 to 46.* The femoral pores are also more numerous, 10 to 16 on each side, usually 11 to 15.† The temporal scales are usually smaller,‡ and the upper temporal is sometimes single. The subocular borders the mouth very narrowly, its lower border rarely more than $\frac{1}{4}$ the length of the upper. A more or less distinct gular fold; collar usually better marked, but very rarely quite free.

One specimen has a single postnasal, the two normal shields being fused. Another has 7 pairs of chin-shields, the 4 anterior in contact in the middle.

* I have counted the scales in 100 specimens from Cyprus, and noted 21 with 44, 16 with 42, 13 with 40, 11 with 45, 10 with 46, 10 with 41, 8 with 43, 3 with 48, 3 with 39, 2 with 47, 2 with 38, and 1 with 49.

† 79 times 13, 59 times 12, 25 times 11, 23 times 14, 8 times 15, 4 times 10, and twice 16.

‡ 50 to 90.

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Measurements (in millimetres):

	1.	2.	3.
From end of snout to vent	50	46	46
„ „ „ fore limb	18	17	16
Length of head	11	11	10
Width of head	8	7	6
Depth of head	6	6	5
Fore limb	19	19	16
Hind limb	33	31	28
Foot	17	17	15
Tail	102	98	90

1. ♂, L. Phiala, Syria. 2. ♂, Larnaka, Cyprus. 3. ♀, Cyprus.
Habitat.—Syria and Cyprus.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.
Forma typica:						
♂ Baku (type), **P.M.**	46	38	27	17	11	20
♀ Borders of the Caspian Sea, **P.M.**	45	34	29	17	9	21
♂ Angora	55	37	29	18	12–11	23
„ „	48	40	26	18	11–10	21
„ „	47	34	29	23	13	25
„ „	47	36	28	16	12–11	20
„ „	46	40	28	20	11–12	21
„ „	43	40	30	18	11–12	22
♀ „	51	39	28	18	10	21
„ „	51	39	29	17	9	20
„ „	49	37	31	19	11–10	21
„ „	43	35	30	15	9	22
„ „	43	36	32	17	10–11	22
„ „	41	36	30	18	11	21
♂ Kaisarieh	55	40	27	19	11–10	23
„ „	52	39	27	19	10	22
♀ „	47	37	30	20	12	23
„ „	45	40	28	19	11–12	22
„ „	32	38	28	19	11	21
„ Albistan	47	35	30	18	11–10	21
♂ Giaour Dagh	47	37	27	20	12	23
♀ „	42	35	30	15	7–8	23
„ „	36	36	28	17	12	22

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		1.	2.	3.	4.	5.	6.
	Var. *ehrenbergii*.						
♂	Constantinople	53	34	26	17	11	21
,,	Smyrna	53	33	28	18	10–9	20
,,	,,	50	33	30	17	10	23
,,	,,	47	32	28	15	10–9	21
♀	,,	47	32	28	18	11–10	21
♂	,, **G.K.C.**	46	30	28	18	10–11	24
,,	,, ,,	46	30	27	17	9	23
,,	,, ,,	46	31	27	16	10–9	20
♀	,, ,,	50	29	31	18	10–11	21
,,	Xanthus	48	30	28	15	9	22
♂	Meander Valley	40	34	26	17	9	22
♀	,,	45	32	31	17	10	21
♂	Zebil Bulgar Dagh, Cilician Taurus	45	34	28	18	10	21
,,	,, ,,	43	34	27	19	11	22
,,	,, ,,	41	32	26	16	11–10	21
♀	,, ,,	37	33	30	16	10	23
♂	Lebanon	36	28	25	18	8	23
♀	,,	48	32	28	18	11–12	?
,,	Brumana, Lebanon	50	29	30	16	8–9	24
♂	Mt. Hermon	50	31	27	15	10–9	22
,,	,,	45	32	25	19	9	22
,,	Mt. Tabor	47	31	24	18	11–10	20
,,	Sidon, **L.M.**	48	30	26	18	9	24
♀	Samaria	40	29	26	15	8	20
,,	Galilee	36	32	29	17	10–9	21
,,	Tiberias, **P.M.**	56	31	29	19	9–10	24
,,	Jerusalem	50	29	28	17	10–9	21
,,	,,	43	31	27	19	10	21
,,	,,	40	31	28	20	11–10	22
,,	Ramadieh, Euphrates	44	34	26	20	11	23
	Var. *persicus*.						
♂	Superghan, N.W. Persia	58	31	27	16	8	21
♀	,, ,,	53	31	28	18	10–11	23
,,	,, ,,	52	35	29	18	10	21
♂	Superghan to L. Urmi	52	33	28	18	8	21
,,	Seir, W. of L. Urmi	50	33	26	19	10–11	23
,,	,, ,,	47	32	25	17	10	21
♀	,, ,,	51	30	28	16	9	20
,,	,, ,,	50	34	27	17	10–11	21

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	1.	2.	3.	4.	5.	6.
♂ Sujbulak, S. of L. Urmi	39	34	27	18	11–12	21
♀ Kirjawa, E. of L. Urmi	47	30	32	16	9	21
♂ Arzu Id., L. Urmi	55	33	28	18	9	22
♀ „ „	48	31	30	18	8–9	21
♂ Shazalan Id. „	60	33	28	14	8	22
♀ N. of Ispahan	52	33	27	18	10–11	22
„ S. of Ispahan	46	33	27	19	11	23
„ „	42	37	27	20	10–12	21
♂ S.W. of Ispahan	55	34	27	20	10–11	22
„ „	55	36	27	18	9–10	24
„ „	53	36	25	19	11–12	22
„ Abadeh	46	38	26	17	12–11	23
„ Shiraz	42	32	24	21	11	24
„ „	40	34	25	18	10	24
„ „	39	36	24	19	11	24
„ „	39	34	25	17	10	22
„ „	39	35	24	19	11–10	22
♀ „	42	36	25	20	11	23
„ „	41	35	26	18	11	23
♂ Niriz, E. of Shiraz	50	34	23	18	11	23
♀ Shiraz-Karman	45	33	26	20	10–9	23
„ „ „	42	32	26	17	11	23
„ Karman	45	36	28	19	8	23
„ Kur-i-Hazar, S.E. of Karman	46	33	25	20	8–9	23
„ Sharoban, N.E. of Bagdad	50	28	28	17	9	21
Var. *mizolepis*.						
♂ Basra, **B.S.**	48	32	27	21	12–11	24
♀ „ „	44	28	28	17	11	21
Hgr. „	33	34	24	20	12	22
„ „	32	30	30	19	11	22
♀ Amara	38	32	26	18	11	21
„ „	36	34	26	19	11	22
Hgr. Felujah-Ramadieh, Euphrates	34	34	24	16	11	23
„ „ „	34	34	23	18	12	23
♂ Suk esh Shuyuk, Euphrates	50	31	26	18	13	24
„ „ „	39	33	25	19	12	23
„ „ „	34	33	24	16	11–12	21
♀ „ „	39	30	26	19	11	21
„ „ „	37	30	28	17	10	24
„ „ „	35	33	26	19	13	23

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		1.	2.	3.	4.	5.	6.
	Var. *schlueteri.*						
♂	L. Phiala, Mt. Hermon . . .	50	38	26	20	10	21
♀	N.E. slope of Mt. Hermon . .	44	40	30	21	11	22
,,	Baalbeck	45	39	27	19	11	23
♂	Larnaka, Cyprus	46	43	27	20	13	20
,,	,, ,, ...	45	42	26	18	11	21
,,	,, ,, ...	43	46	26	22	13–12	22
♀	,, ,, ...	45	45	29	23	12	24
,,	,, ,, ...	45	48	31	21	13–14	23
,,	,, ,, ...	40	46	31	20	11–12	24
♂	Cyprus	51	46	26	22	13–14	26
,,	,, ...	47	40	26	19	14–15	22
,,	,, ...	47	42	28	20	14	21
,,	,, ...	41	42	26	18	13	21
,,	,, ...	39	44	27	18	12	22
,,	,, ...	38	44	27	21	12	23
♀	,, ...	50	44	30	22	11	22
,,	,, ...	46	46	29	19	13	24
,,	,, ...	46	45	29	21	15–13	22
,,	,, ...	43	44	29	21	14	25
,,	,, ...	41	43	30	19	12–11	21
,,	,, ...	41	45	30	20	12–11	22
,,	,, ...	41	46	29	19	13–12	20
,,	,, ...	41	42	30	22	13–14	23
,,	,, ...	40	42	29	19	12	22
,,	,, ...	40	43	29	21	12	21
,,	,, ...	39	49	31	24	13–14	25
,,	,, ...	38	43	30	22	12–13	24
,,	,, ...	36	46	28	23	13–12	25

Synopsis of the Varieties.

32 to 41 (usually 34 to 40) scales and plates round middle of body; 7 to 13 (usually 9 to 12) femoral pores on each side; collar distinct only on the sides; occipital small or very small — *Forma typica.*

28 to 34 scales and plates round middle of body; 8 to 12 (usually 9 to 11) femoral pores on each side; collar distinct only on the sides; occipital small or very small . . . . . Var. *ehrenbergii.*

28 to 38 (usually 31 to 36) scales and plates round middle of body; 8 to 11 (rarely 12) femoral pores on each side; collar often distinct, sometimes free across the throat; occipital usually rather large, sometimes 2 to 2½ times the width of the interparietal . . . . . Var. *persicus.*

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28 to 34 scales and plates round middle of body; 10 to 13 femoral pores on each side; occipital small or very small; nostril between 3 shields . . . . . Var. *mizolepis*.

38 to 49 (usually 40 to 46) scales and plates round middle of body; 10 to 16 (usually 11 to 15) femoral pores on each side; collar and gular fold often distinct; occipital small or very small . . . . . Var. *schlueteri*.

Of these forms the last must be regarded as, on the whole, the most primitive, and leading, through the typical form, to the vars. *ehrenbergii* and *mizolepis*. The var. *persicus* is directly connected with the typical form.

5. OPHIOPS MICROLEPIS.

Ophiops (*Gymnops*) *microlepis*, Blanf. Journ. As. Soc. Beng. xxxix, 1870, p. 351, pl. xv, figs. 1–5.

Gymnops microlepis, Stoliczka, Journ. As. Soc. Beng. xli, 1872, p. 90, and Proc. As. Soc. Beng. 1872, p. 74.

Ophiops microlepis, Bouleng. Cat. Liz. iii, p. 77 (1887), and Faun. Ind., Rept. p. 175 (1890).

Body rather strongly depressed. Head much depressed, $1\frac{3}{5}$ to $1\frac{3}{4}$ times as long as broad, its depth equal to the distance between the centre of the eye and the tympanum, its length about $3\frac{2}{3}$ to 4 times in length to vent; snout pointed, with the nasals feebly swollen, longer than the postocular part of the head, flattened, with the labials projecting beyond the edge of the mouth and forming an obtusely angular ridge, with sharp canthus and concave loreal region, the chin quite flat; a feeble concavity on the upper surface of the snout and on the anterior half of the frontal shield, bordered by two very feeble keels on the frontonasal and prefrontal shields; nostril supero-lateral; a sharp keel below the eye. Pileus $2\frac{1}{4}$ to $2\frac{1}{3}$ times as long as broad. Neck as broad as or a little narrower than the head. The hind limb reaches the ear or between the ear and the eye; foot $1\frac{2}{5}$ to $1\frac{3}{5}$ as long as the head; digits long and slender, strongly compressed. Tail a little more than twice as long as head and body.*

Upper head-shields smooth; nostril pierced between 2 or 3 shields; nasals forming a suture behind the rostral; frontonasal broader than long; prefrontals longer than broad, forming an extensive median suture; frontal as long as its distance from the end of the snout, $1\frac{2}{3}$ to 2 times as long as broad, narrower behind than in front; parietals longer than broad, with the posterior border very oblique; inter-

* Nearly twice and a half in the type specimen, according to Blanford.

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parietal $1\frac{1}{2}$ to $2\frac{1}{2}$ times as long as broad, in contact with the occipital or separated from it by a small shield* or by the parietals meeting on the median line.† 4 supraoculars, first and fourth small, first in contact with the frontal, exceptionally divided into two, fourth more or less band-like and sometimes separated from the frontoparietal; 4 superciliaries, first and second longest; a series of granules between the principal supraoculars and the superciliaries. Two large nasals, an upper and a lower, the anterior half of the latter resting on the rostral, and a small postnasal wedged in between them, sometimes reaching the nostril, sometimes not; anterior loreal $\frac{1}{2}$ the length of the second; 4 upper labials anterior to the subocular, which is much narrower beneath than above and borders the mouth. 2 large upper temporals, anterior the longer and in contact or not with the fourth supraocular; temporal scales small, granular, smooth or feebly keeled; a large, opercle-like tympanic shield.

6 pairs of chin-shields,‡ the three, rarely two, anterior in contact in the middle; 23 to 29 gular scales in a straight line between the symphysis of the chin-shields and the ventral plates, the anterior small and juxtaposed, the posterior enlarged and imbricate and graduating into the collar, which is more or less distinct, free or attached in the middle, and composed of 7 to 9 plates.

Scales rather small, strongly keeled; a little larger and smooth towards the ventral plates, from which they are abruptly differentiated; ventral plates in 6 longitudinal and 25 to 27 transverse series; 56 to 64 scales and plates round the middle of the body. A large preanal plate bordered by two semicircles of small plates, or two large plates, one in front of the other.

Scales on upper surface of tibia rhombic and keeled, as large as or a little larger than dorsals. 12 to 16 femoral pores on each side. Subdigital lamellæ uni-, bi-, or tricarinate, 21 to 24 under the fourth toe.

Upper caudal scales large, strongly keeled and shortly mucronate; basal subcaudals smooth or obtusely keeled; 16 to 20 scales in the fourth or fifth whorl behind the postanal granules.

Greyish or reddish brown above, uniform on the head and along the middle of the back, with small blackish spots or reticulations on the sides; a white, often dark-edged, streak on each side from the super-

* In single specimens from Ajmere and Bhuj; also in the type specimen figured by Blanford.

† In a specimen from Kurhurbari.

‡ Sometimes 5, according to Stoliczka; Blanford describes the type specimen as with 6 shields on one side and 7 on the other.

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ciliary edge to the base of the tail, and sometimes a second from the upper lip, through the tympanum, to the base of the hind limb; limbs and tail reddish. Lower parts white. In life a few green spots may be present on the sides, according to Blanford, and the lower parts, particularly the thighs, may be tinged with yellow, according to Stoliczka.

Measurements (in millimetres):

	1.	2.	3.	4.
From end of snout to vent	65	65	56	44
„ „ „ fore limb	27	26	23	17
Length of head	16	16	15	12
Width of head	9	10	8	7
Depth of head	7	7	6	5
Fore limb	25	25	21	19
Hind limb	43	43	41	36
Foot	23	22	22	19
Tail	135	142	125	—

1. ♂, Ajmere. 2. ♂, Kurhurbari. 3. ♂, Cutch. 4. ♀, Bhuj, Cutch.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.
♂ Cutch	57	58	26	24	14–13	24
„ „	38	64	25	25	14–15	23
„ „	38	63	26	25	13–12	24
♀ Bhuj, Cutch, **B.S.**	44	56	27	23	14	24
♂ Ajmere, Rajputana	65	58	26	26	16–15	22
„ Kurhurbari, Bengal	65	58	26	29	15	21
„ „ „	62	64	25	29	15–14	21

Habitat.—Cutch, Rajputana, Central Provinces, Bengal.

The type specimen is from Korba in Bilaspur, Central Provinces.

This species, which in many respects approaches *Cabrita leschenaultii*, differs greatly from all others in the shape of the head, the long and compressed toes; in the small dorsal scales it is approached by *O. elegans*, var. *schlueteri*.

18. EREMIAS.

Podarcis, part., Wagl. Syst. Amph. p. 155 (1830); Strauch, Mél. Biol. Ac. St. Pétersb. vi, 1867, p. 408.

Eremias (Fitzing.), Wiegm. Herp. Mex. p. 9 (1834); Peters, Mon.

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Berl. Ac. 1869, p. 60; Lataste, Ann. Mus. Genova (2) ii, 1885, p. 126; Bouleng. Cat. Liz. iii, p. 80 (1887); Anders. Zool. Egypt. Rept. p. 169 (1898); Bedriaga, Wiss. Res. Przewalski Reise, Amph. Rept. (1909); Bouleng. Journ. Zool. Res. iii, 1918, p. 1.

Eremias, part., Gray, Ann. N. H. i, 1838, p. 280; Dúm. & Bibr. Erp. Gén. v, p. 286 (1839); Gray, Cat. Liz. p. 39 (1845).

Scapteira, part., Gray, Ann. N. H. i, p. 281.

Ida, part., Gray, l.c.

Mesalina, Gray, l.c. and Cat. p. 42.

Aspidorhinus, Eichw. Faun. Casp.-Cauc. p. 74 (1841).

Pseuderemias, Boettg. Abh. Senck. Ges. xiii, 1883, p. 118.

Boulengeria, Lataste, t.c. p. 116.

Lampreremias, *Tænieremias*, Bouleng. Journ. Zool. Res. t.c. p. 2.

Head-shields normal, but occipital often rudimentary or absent. Nostril pierced between three or four nasals, widely separated from the upper labials. Collar more or less distinct. Dorsal scales small and juxtaposed or subimbricate; ventral plates not or but feebly imbricate, with straight posterior border, smooth. Digits subcylindrical or compressed, with keeled lamellar scales inferiorly. Femoral pores. Tail long, cylindrical or feebly compressed posteriorly.

South-Eastern Europe; Western and Central Asia eastward to Manchuria, Corea, Northern China and Sind; Africa.

The parietal foramen is constantly present; pterygoid teeth are more frequently absent than present, and it does not seem possible to make use of this character for the definition of species.

There are usually three series of scales round the toes: an upper, a lower and a more or less complete outer; a keel, corresponding to the middle of the base of the claw, as in the section *Pseuderemias*, may be accompanied by one or two others on the outer side of it, as is the case in most species; or the three series of scales are one upper and two lower, each of the latter with a keel, as in *E. argus*, in which case the subdigital lamellæ are described as in two rows; or in addition to these there may be one or two series of small lateral scales on the outer side of the toe, which is thus surrounded by four or five series

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of scales, as in *E. arguta*. The scales on the sides of the toes sometimes form a very slight denticulation (*E. fasciata, vermiculata, arguta*), thus leading to the genus *Scaptira*, in which the character is more pronounced.

Eremias is certainly derived from *Nucras*, the two species placed at the head of the series establishing the connexion with that genus. Judging from the description, *E. neumanni* appears to agree with *Nucras* in the nasal shields, and I have seen specimens of *E. argus* which, owing to the wide separation of the submasal (= lower postnasal) from the rostral, answer to the definition of that genus so far as this character is concerned, the essential difference between the two genera residing in the presence or absence of keels on the subdigital scales, in the same way as *Latastia* is separated from *Lacerta*.

As in *Nucras* and in *Acanthodactylus*, the striation of the young of many species (Sections *Lampreremias*, *Mesalina*, *Eremias*) is of a very primitive type—7 to 10 light streaks on the neck, 7 to 9 on the body; there is a frequent tendency for these streaks to break up into ocellar spots, which become converted into transverse series, and running together and losing the light centres, to black cross-bars, exactly as in *Nucras*.*

34 species are here regarded as more or less well established, 6 of which are not known to me from autopsy. Although I have examined about 1000 specimens, the material at my disposal has not been so exhaustive as for other genera, and I particularly regret a comparative deficiency of Central Asian specimens, which is all the more to be deplored on account of the difficulties with which the systematic treatment of this group is still beset. Fortunately, I have been able to avail myself of the detailed descriptions, based on over 500 specimens, published by Bedriaga in his monumental work on the Results of the Przewalski Expeditions, but there are still some points that I cannot settle to my satisfaction without direct comparison of the material preserved in the Petrograd Museum.

The genus is divided into 5 sections, which I am fully convinced represent natural associations. The first establishes the passage from *Nucras* and leads to the second, a terminus group. The third occupies an isolated position and is probably derived from the first. The fourth and fifth sections, although more remote from *Nucras* than the first, have probably been independently derived from the same original stock, and the species have been evolved on somewhat parallel lines, as is evidenced by the similarity in the arrangement of the ventral plates between some of the South African species and the Asiatic

* *Cf.* figures in Ann. S. Afr. Mus. xiii, 1917, pls. vi, vii.

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group constituting the typical *Eremias*, which, though typical in virtue of the rules of nomenclature, are the most remote from the original type from the phylogenetic point of view.

Synopsis of the Species.

Section I. Lampreremias, Blgr.—Three (rarely four) nasals, the lower in contact with the first upper labial (rarely first and second) and with the rostral; ventral plates in 6 (exceptionally 8) straight longitudinal series; toes not or but feebly compressed, with bi- or tricarinate lamellæ inferiorly.—Tropical Africa.

A. Frontal in contact with the two large supraoculars; lower nasal narrowly in contact with rostral.

42 to 64 keeled scales across middle of body; 21 to 24 lamellæ under the fourth toe . . . . . 1. *E. nitida*, Gthr., p. 231.

65 to 68 keeled scales across middle of body; 26 lamellæ under the fourth toe; nostril between 4 shields.

2. *E. quadrinasalis*, Chaban., p. 234.

B. Frontal separated from the supraoculars by small scales; lower nasal extensively in contact with rostral.

60 to 77 keeled scales across middle of body; 20 to 26 lamellæ under the fourth toe; upper head-shields striated.

3. *E. spekii*, Gthr., p. 235.

68 to 87 keeled scales across middle of body; 25 to 29 lamellæ under the fourth toe; upper head-shields smooth.

4. *E. lugubris*, A. Smith, p. 239.

Section II. Pseuderemias, Boettg.—Four nasals, two lower in contact with the two or three first upper labials, the anterior also with the rostral; ventral plates in 6 to 10 straight longitudinal series; toes strongly compressed, with unicarinate lamellæ inferiorly; frontal separated from the supraoculars by small scales.—N.E. Africa and Sinaitic Peninsula.

A. Upper head-shields smooth or rugose, not striated.

Upper head-shields smooth or a little rugose; 65 to 80 smooth or feebly keeled scales across middle of body; upper caudal scales strongly keeled; ventral plates in 6 or 8 longitudinal series; subocular often bordering the mouth.

5. *E. mucronata*, Blanf., p. 244.

Upper head-shields rugose or pitted; 68 to 82 smooth scales across middle of body; upper caudal scales strongly keeled; ventral plates in 8 or 10 longitudinal series; subocular not reaching the mouth . . . . . 6. *E. smithii*, Blgr., p. 247.

Upper head-shields smooth; 53 to 60 keeled scales across middle of body; upper caudal scales feebly keeled; ventral plates in 8 longitudinal series; subocular not reaching the mouth . . . . . 7. *E. erythrosticta*, Blgr., p. 250.

B. Upper head-shields striated; ventral plates in 6 or 8 longitudinal series; 53 to 68 keeled scales across middle of body.

Upper head-shields coarsely striated; subocular bordering the mouth; 13 to 18 femoral pores on each side . 8. *E. striata*, Peters, p. 251.

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Upper head-shields finely striated; subocular not reaching the mouth; 20 to 24 femoral pores on each side . 9. *E. brenneri*, Peters, p. 254.

Section III. Tæniæremias, Blgr.—Three nasals, the lower and the posterior resting on the first upper labial; ventral plates in 10 straight longitudinal series; no occipital; toes feebly compressed, with tricarinate lamellæ inferiorly. —West Africa.

60 smooth scales across middle of body; 21 femoral pores on each side . . . . . 10. *E. guineensis*, Blgr., p. 256.

Section IV. Mesalina, Gray.—Three nasals, the lower in contact with the rostral and the first (very rarely first and second) upper labial; ventral plates in 10 to 18 (exceptionally 8) straight longitudinal series, rarely irregular or tessellated; occipital usually present; toes feebly compressed, with bi- or tricarinate lamellæ inferiorly.—Africa and S.W. Asia.

A. North African and Asian species. Collar curved or angular, sometimes distinct on the sides only.

1. Nasals in contact behind the rostral; 32 to 62 scales across middle of body; 9 to 17 femoral pores on each side.

Head and body rather strongly depressed, limbs moderately slender; head $1\frac{2}{5}$ to $1\frac{2}{3}$ times as long as broad; occipital present, nearly always in contact with the interparietal or separated from it by a small shield; ventral plates in 10 (rarely 8) longitudinal series; scales on upper surface of tibia keeled . . . . . 11. *E. guttulata*, Licht., p. 258.

Head and body strongly depressed, limbs very slender; head $1\frac{1}{2}$ times as long as broad; occipital absent or minute and not in contact with interparietal; ventral plates in 10 longitudinal series; scales on upper surface of tibia smooth or obtusely keeled . . . . 12. *E. adramitana*, Blgr., p. 271.

Habit rather stout; head not strongly depressed, $1\frac{1}{5}$ to $1\frac{1}{3}$ times as long as broad; occipital absent or minute and not in contact with interparietal; ventral plates in 12 (rarely 10) longitudinal series; scales on upper surface of tibia smooth or obtusely keeled . 13. *E. brevirostris*, Blanf., p. 273.

2. Rostral often in contact with frontonasal; 53 to 67 scales across middle of body; occipital present; ventral plates in 12 (rarely 10 or 14) longitudinal series; 13 to 22 femoral pores on each side.

14. *E. rubropunctata*, Licht., p. 276.

B. South African species. Collar straight and perfectly free.

1. A narrow tympanic shield; ventral plates in 10 or 12 longitudinal series; $\frac{1}{2}$ to $\frac{4}{5}$ of the lateral border of the frontal in contact with the two large supraoculars; nasals in contact behind the rostral.

Lower eyelid semi-transparent, with 10 to 12 enlarged scales in the middle, one of which may be much larger than the others; 47 to 65 scales across middle of body; ventral plates in 12 (rarely 10) longitudinal and 28 to 33 transverse series.

15. *E. namaquensis*, D. & B., p. 280.

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Lower eyelid with a large transparent disc formed of 2 to 6 black-edged scales; 58 to 75 scales across middle of body; ventral plates in 10 (rarely 12) longitudinal and 27 to 34 transverse series . . . . 16. *E. undata*, A. Smith, p. 283.

Lower eyelid with a large transparent disc formed of a single black-edged scale; 52 to 67 scales across middle of body; ventral plates in 10 longitudinal and 27 to 31 transverse series . . . . . 17. *E. benguelensis*, Bocage, p. 287.

2. No tympanic shield; ventral plates in 12 to 18 (rarely 10) longitudinal series, often irregular or tessellated.

a. Lower eyelid with a large transparent disc, formed of two large, black-edged scales.

Upper head-shields smooth or more or less rugose; 53 to 75 scales across middle of body, smooth or keeled; ventral plates in 12 or 14 (rarely 10) longitudinal and 30 to 39 transverse series; anterior border of ear usually with 3 or 4 projecting scales; 23 to 30 lamellæ under the fourth toe . . . . . 18. *E. lineo-ocellata*, D. & B., p. 289.

Upper head-shields very rugose; 51 to 56 strongly keeled scales across middle of body; ventral plates in 12 or 14 longitudinal and 33 to 37 transverse series; no projecting scales in front of the ear; 21 lamellæ under the fourth toe. 19. *E. aspera*, Blgr., p. 299.

b. Lower eyelid opaque or semitransparent, with 10 to 15 feebly enlarged scales in the middle.

65 to 75 scales across middle of body; ventrals in 14 (rarely 16) longitudinal and 29 to 35 transverse series; nasals in contact behind the rostral . . . 20. *E. burchelli*, D. & B., p. 302.

48 to 62 scales across middle of body; ventrals in 16 or 18 longitudinal and 31 to 36 transverse series; rostral nearly always in contact with the frontonasal . 21. *E. capensis*, A. Smith, p. 304.

Section V. Eremias, s. str - Three nasals (exceptionally four), the lower in contact with the two or three anterior upper labials; ventral plates in 12 to 20 very irregular or oblique longitudinal series, converging posteriorly; occipital absent; toes cylindrical or compressed, with uni-, bi-, or tricarinate lamellæ inferiorly.—S.E. Europe and Asia.

A. The first of the two large supraoculars as long as or longer than its distance from the second loreal (with rare exceptions); suboecular bordering the mouth; 15 to 25 femoral pores on each side, the two series meeting or separated by a space not exceeding $\frac{1}{4}$ the length of each.

1. 12 to 16 ventral plates in the longest transverse series; 18 to 35 gular scales in a straight median series.

a. Foot rarely more than $1\frac{1}{4}$ times the length of the head; 19 to 25 lamellæ under the fourth toe; gular fold usually distinct; 48 to 63 scales across middle of body.

a. Rostral not more than $1\frac{1}{4}$ times as broad as deep; snout pointed, nasals swollen.

19 to 35 gular scales in a straight median series; 28 to 35 transverse series of ventral plates . . 22. *E. velox*, Pall., p. 308.

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18 gular scales in a straight median series; 26 transverse series of ventral plates . . . . 23. *E. bedriagæ*, Nik., p. 314.

β. Rostral more than $1\frac{1}{4}$ times as broad as deep; snout very obtuse, nasals not or but feebly swollen; 20 to 23 gular scales in a straight median series.

Rostral $1\frac{1}{3}$ times as broad as deep; 31 transverse series of ventral plates . . . . . 24. *E. nikolskii*, Bedr., p. 315.

Rostral $1\frac{1}{2}$ times as broad as deep, extensively in contact with the lower nasal; 26 transverse series of ventral plates. 25. *E. regeli*, Bedr., p. 316.

b. Foot more than $1\frac{1}{4}$ times the length of the head; 25 to 30 lamellæ under the fourth toe; no gular fold; 45 to 55 scales across middle of body . . . . . 26. *E. fasciata*, Blanf., p. 318.

2. 18 to 20 ventral plates in the longest transverse series; 31 to 43 gular scales in a straight median series; 55 to 71 scales across middle of body. 27. *E. vermiculata*, Blanf., p. 320.

B. The first of the two large supraoculars longer than its distance from the second loreal; 9 to 19 femoral pores on each side, the two series broadly separated in the middle, the space usually at least $\frac{1}{3}$ the length of each, very rarely $\frac{1}{4}$.

1. 27 to 47 gular scales in a straight median series, usually 30 to 41; nasals not or scarcely swollen; subocular rarely reaching the mouth; 54 to 70 scales across middle of body; 11 to 19 femoral pores on each side.

16 ventral plates in the longest transverse series; rostral broader than deep; 4 prefrontals, the outer narrow. 28. *E. quadrifrons*, Strauch, p. 322.

16 to 22 ventral plates in the longest transverse series, usually 18; rostral as deep as broad; 2 prefrontals. 29. *E. przewalskii*, Strauch, p. 324.

2. 20 to 36 gular scales in a straight median series, usually 22 to 30; 45 to 62 scales across middle of body.

14 to 16 (rarely 18) ventral plates in the longest transverse series; nasals not or scarcely swollen; parietals a little longer than broad; subocular often bordering the mouth; 9 to 15 femoral pores on each side . 30. *E. multiocellata*, Günth., p. 327.

16 to 18 ventral plates in the longest transverse series; nasals not or scarcely swollen; parietals as long as broad; subocular bordering the mouth; 15 to 17 femoral pores on each side . . . . . 31. *E. pleskei*, Bedr., p. 332.

16 to 18 ventral plates in the longest transverse series; nasals rather strongly swollen; parietals not longer than broad; frontal often separated from the supraoculars by a series of granules; subocular not reaching the mouth; 12 to 17 femoral pores on each side . . . 32. *E. intermedia*, Strauch, p. 333.

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C. The first of the two large supraoculars at most as long as, usually shorter than its distance from the second loreal; 7 to 14 femoral pores on each side, the two series broadly separated in the middle, the space at least $\frac{1}{3}$ the length of each; 39 to 62 scales across middle of body.

12 or 14 ventral plates in the longest transverse series; frontonasal divided into two; 3 or 4 series of scales round the toes . . . . . 33. *E. argus*, Peters, p. 336.

16 to 20 (rarely 14) ventral plates in the longest transverse series; frontonasal single; 4 or 5 series of scales round the toes . . . . . 34. *E. arguta*, Pall., p. 342.

1. EREMIAS NITIDA.

Eremias nitida, Günth. Ann. & Mag. N. H., (4) ix, 1872, p. 381; Bouleng. Cat. Liz. iii, p. 83, pl. iv, fig. 1 (1887); Tornier, Arch. f. Nat. lxvii, 1901, Beih. p. 73; Klaptocz, Zool. Jahrb., Syst. xxxiv, 1912, p. 282; Bouleng. Journ. Zool. Res. iii, 1918, p. 3.

Eremias nigerica, Klaptocz, l.c.

Head and body moderately depressed. Head $1\frac{2}{3}$ times as long as broad, its length $3\frac{1}{2}$ to a little over 4 times in length to vent, its depth equal to the distance between the centre of the eye and the tympanum; snout obtusely pointed, as long as the postocular part of the head, nasals not swollen; canthus rostralis obtuse, loreal region feebly concave; a slight concavity on the upper surface of the snout and along the frontal shield. Pileus twice as long as broad. Neck as broad as the head or a little constricted. Hind limb reaching the collar or between the collar and the ear; foot a little longer than the head; toes slender, not compressed. Tail 2 to $2\frac{1}{3}$ times as long as head and body.

Upper head-shields flat, smooth. Nasals in contact behind the rostral, the suture between them as long as or a little shorter than the frontonasal, which is broader than long; prefrontals as long as broad or a little broader, forming a suture in the middle; frontal as long as its distance from the end of the snout, $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as broad, narrow behind; parietals a little longer than broad; interparietal twice as long as broad, as long as the frontoparietals or the suture between them*; occipital very small, sometimes separated from the interparietal by a small shield. Two large supraoculars, preceded and followed by two or three small shields; 5 superciliaries, first elongate; a series of granules between the supraoculars and the superciliaries. Three nasals, lower in contact with the rostral on a very

* Shorter in the specimen described by Klaptocz.

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small point and with the first upper labial; anterior loreal as long as deep or a little longer, shorter than the second; 5, rarely 6, upper labials anterior to the subocular, which is much narrower beneath than above and borders the mouth. A long and narrow upper temporal, followed by a small shield; temporal scales small, granular; a narrow tympanic shield. Lower eyelid opaque, scaly.

4 or 5 pairs of chin-shields, the three anterior in contact in the middle; 28 to 31 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate, the last two or three rows much enlarged; no gular fold. Collar slightly curved, free, composed of 7 to 10 plates.

Scales rhombic, juxtaposed, keeled, larger towards the ventral plates, 42 to 50 across the middle of the body. Ventral plates in 6 straight longitudinal and 26 or 27 transverse series, the median pair about $1\frac{1}{2}$ times as broad as long, the others fully twice as broad as long. Preanal plate small, a little broader than long, with one small plate on each side and two series of small plates in front.

Scales on upper surface of tibia similar to the dorsals; a single series of large plates on the lower surface. 12 to 15 femoral pores on each side.* Subdigital lamellæ bicarinate, 21 to 24 under the fourth toe.

Caudal scales strongly keeled, slightly oblique, 28 or 30 in the fourth or fifth whorl.

Vertebral region brown, sides black; a more or less distinct lighter vertebral streak, bifurcating on the nape, and a dorsolateral, proceeding from the outer border of the parietal shield; two white lateral streaks, sometimes broken up into spots, the upper from behind the eye to the tail, passing above the tympanum, the lower from the upper lip, through the tympanum, to the groin; limbs reddish brown above; lower parts white; tail red.

Measurements (in millimetres):

From end of snout to vent	41
,, ,, ,, fore limb	17
Length of head	10
Width of head	6
Depth of head	5
Fore limb	14
Hind limb	26
Foot	13
Tail	96

* Sometimes 11 according to Tornier.

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Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
Hgr. (type) . . .	41	42	6	27	10	30	12	24	6–5
Yg. „ . . .	34	43	6	27	8	31	13–15	22	5
„ Wushishi . .	25	50	6	26	7	28	13–12	21	5

1. Length from snout to vent (in millimetres). 2. Scales across middle of body. 3. Longitudinal series of ventral plates. 4. Transverse series of ventral plates. 5. Plates in collar. 6 Gular scales in a straight median series. 7. Femoral pores (right and left if differing). 8. Lamellæ under fourth toe. 9. Upper labials anterior to centre of eye (right and left if differing).

Same explanation for the other tables in this genus.

Three specimens are preserved in the British Museum: the types, labelled "West Africa," and one from near Wushishi, N. Nigeria. A fourth, from Iryan on the Niger, has been described by Klaptocz, and several from Togoland have been recorded by Tornier.

This species establishes a transition from *Nucras* to *Eremias*.

Var. GARAMBENSIS.

Eremias nitida garambensis, Schmidt, Bull. Amer. Mus. N. H. xxxix, 1919, p. 511, figs.

This lizard, described by Schmidt from 34 specimens, one of which has been presented to the British Museum by the American Museum of Natural History, may eventually prove to be entitled to specific rank.

The interparietal is narrower than in *E. nitida*, and there are 52 to 64 scales across the middle of the body. In the specimen examined by me, and of which measurements are appended, only the two anterior pairs of chin-shields meet on the median line, and there is consequently a higher number of gular scales in a longitudinal series; there are 4 supraoculars, the first and fourth very small. The pattern of coloration differs considerably, there being a pair of light streaks, each bifurcating on the nape, bordering a black vertebral stripe.

Measurements (in millimetres):

From end of snout to vent	57
„ „ „ fore limb . . .	19
Length of head	13
Width of head	7·5
Depth of head	6
Fore limb	19
Hind limb	33
Foot	18
Tail	138

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Particulars of Specimen Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♀ Garamba	57	61	6	27	8	42	13	23	5

Habitat.—Uelle Province of the Belgian Congo.

2. EREMIAS QUADRINASALIS.

Eremias quadrinasalis, Chaban. Bull. Mus. Paris, 1918, p. 108.

Head and body moderately depressed. Head $1\frac{2}{3}$ times as long as broad, its length a little more than 4 times in length to vent; snout obtuse, with very feebly marked canthus; nasals not swollen; a rather deep concavity on the upper surface of the snout and along the frontal shield. Hind limb hardly reaching the collar; foot a little longer than the head; toes moderately compressed.

Upper head-shields flat, smooth. Nasals in contact behind the rostral; frontonasal much broader than long; frontal a little longer than its distance from the rostral; parietals longer than broad; interparietal twice as long as broad, $\frac{2}{3}$ the length of the suture between the frontoparietals; occipital very small, separated from the interparietal by the parietals meeting on the median line. Two large supraoculars, preceded by 2 and followed by 3 or 4 small shields; 7 superciliaries, first and second largest; a series of granules between the supraoculars and the superciliaries. Nostril between 4 nasals: an upper, an anterior, a lower, and a posterior, the lower just touching the rostral and resting on the first upper labial; 5 upper labials anterior to the subocular, which borders the mouth. A long and narrow anterior temporal, followed by two small shields; temporal scales small, granular. Lower eyelid opaque, scaly.

4 pairs of chin-shields, only the first in contact in the middle; a feeble gular fold. Collar feebly curved, free, composed of 8 plates.

Scales juxtaposed, keeled, larger towards the ventral plates, 65 to 68 across middle of body. Ventral plates in 6 longitudinal and 28 transverse series. A large preanal, preceded by 2 smaller plates.

Scales on upper surface of tibia a little larger than dorsals. 14 femoral pores on each side. Subdigital lamellæ bicarinate, 26 under the fourth toe.

Pale brown above, reddish on the tail; a blackish vertebral band, from the occiput to the lumbar region; a black streak on each side of it on the nape; sides blackish, spotted with lighter, with two light streaks, the upper from the eye to the inguinal region, the lower from

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below the eye, through the tympanum, to the tail; limbs blackish, with numerous round light spots.

Measurements (in millimetres):

From end of snout to vent	66
Length of head	16
Width of head	9·5
Fore limb	19
Hind limb	38
Foot	20

The single specimen on which this species is founded was obtained by the Chevalier-Decorse Mission in the Shari-Chad district and is preserved in the Paris Museum.

3. EREMIAS SPEKII.

Eremias lugubris (non A. Smith), Peters, Decken's Reise, iii, Rept. p. 49 (1869).

Eremias spekii, Günth. Ann. & Mag. N. H. (4) ix, 1872, p. 381; Boulenq. Cat. Liz. iii, p. 84, pl. iv, fig. 2 (1887); Werner, Verh. Zool.-bot Ges. Wien, xlv, 1895, p 191; Tornier, Zool. Jahrb., Syst. xxii, 1905, p. 377; Werner, Sitzb. Ak. Wien, cxvi, i, 1908, p. 1845; Sternf. in Schubotz, Wiss. Ergebn. Deutsch. Z.-Afr. Exped. iv, ii, p. 223 (1912); Nieden, Mitt. Zool. Mus. Berl. vii, 1913, p. 78; Boulenq. Journ. Zool. Res. iii, 1918, p. 3.

Eremias rugiceps, Peters, Mon. Berl. Ac. 1878, p. 202, pl. ii, fig. 1.

Eremias sextæniata, Stejneg. Proc. U.S. Nat. Mus. xvi, 1894, p. 718; Boulenq. Ann. & Mag. N. H. (6) xvi, 1895, p. 168, and Proc. Zool. Soc. 1895, p. 534.

Eremias spekii, var. *sextæniata*, Tornier, l.c.; O. Neumann, Zool. Jahrb., Syst. xxii, 1905, p. 396.

Head and body moderately depressed. Head $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as broad, its length $3\frac{3}{4}$ to $4\frac{1}{2}$ times in length to vent, its depth equal to the distance between the anterior corner of the eye and the tympanum; snout rather obtusely pointed, as long as the postocular part of the head; nasals not or but feebly swollen; canthus rostralis sharp or rather obtuse, loreal region feebly concave; frontal concavity feeble or absent. Pileus $1\frac{3}{4}$ to 2 times as long as broad. Neck as broad as the head or a little constricted. Hind limb reaching the ear or the eye in males, the collar, the ear, or between the ear and the eye in females; foot $1\frac{1}{3}$ to $1\frac{1}{2}$ times the length of the head; toes slender, feebly compressed. Tail $1\frac{3}{4}$ to $2\frac{3}{4}$ times as long as head and body.

Upper head-shields flat, strongly and closely striated. Nasals in

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contact behind the rostral, the suture between them $\frac{1}{5}$ to $\frac{1}{2}$ the length of the frontonasal, which is broader than long*; prefrontals as long as broad or a little longer, usually forming a median suture,† rarely separated by the frontonasal and extending to the frontal‡; frontal as long as or a little shorter than its distance from the end of the snout, $1\frac{1}{2}$ to 2 times as long as broad, separated from the supraoculars by a series of small scales; parietals as long as broad or broader, not longer than the frontoparietals, often meeting behind the intraparietal, which is much smaller than the frontoparietals; occipital very small, minute, or absent. First supraocular sometimes entire, usually replaced by one or two series of small scales, the second as long as its distance from the second loreal; fourth supraocular replaced by small scales; 4 or 5, rarely 6, superciliaries, first longest; a series of small scales between the supraoculars and the superciliaries, or one series in front and two or three behind. Three nasals, posterior smallest, lower in contact with the rostral and the first upper labial §; anterior loreal as long as deep or deeper, usually shorter than the second; 4 to 5, rarely 7, upper labials to below the centre of the eye; subocular much narrowed inferiorly and bordering the mouth, or resting on 3 or 4 upper labials, one of which sometimes represents clearly the detached lower part of the subocular. An elongate, keeled upper temporal, often followed by a smaller shield, sometimes separated from the parietal by 2 to 4 small scales; temporal scales hexagonal, small and strongly keeled above, larger and smooth or obtusely keeled beneath; a narrow tympanic shield; no auricular denticulation, or only 2 or 3 projecting granules; lower eyelid opaque or semi-transparent in the middle, with 6 or 7 vertically enlarged scales.

5 pairs of chin-shields, the 3 anterior in contact in the middle; 17 to 27 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate; no gular fold. Collar curved, free, composed of 7 to 10 (rarely 11) plates.

Scales rhombic, strongly and diagonally keeled on the back, larger and smooth or obtusely keeled towards the ventrals; 60 to 77 scales across the middle of the body,‖ usually 63 to 71. Ventral plates in 6 straight longitudinal and 23 to 30 transverse series, broader than

* Longitudinally divided into two in a specimen from Mombasa, according to Nieden.

† An azygos shield separates the frontoparietals in a male from Berbera; the same specimen has the frontonasal longitudinally divided.

‡ In 3 specimens from Morogoro.

§ I cannot account for Tornier's statement that in the typical *E. spekii* the lower nasal rests on the first and second labials.

‖ Up to 80 according to Sternfeld.

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long, those of the two outer series on each side fully twice as broad as long. Preanal region covered with numerous irregular scales, or with those on the median line a little enlarged.

Scales on upper surface of tibia rhombic, subimbricate, keeled, as large as or a little larger than dorsals; one series of very large and one of small plates on the lower surface. 12 to 20 femoral pores on each side, usually 13 to 18. Subdigital lamellæ bicarinate, 20 to 26 under the fourth toe, usually 22 to 24.

Upper caudal scales very oblique, truncate behind, strongly and diagonally keeled, often striated in addition, lower keeled; 18 to 22 scales in the fourth or fifth whorl.

Young black above and on the sides, with white streaks, the outer of which may be broken up into series of spots; limbs with round white spots; throat and belly white; tail red. In what I regard as the most primitive pattern (Inland of Berbera) there are 9 series of white streaks on the neck, 8 on the body, 5 on the base of the tail: of the 4 pairs, the innermost originates behind the middle of the parietal shield and unites with its fellow on the base of the tail: the next starts from behind the eye and ends on the tail; the following extends from below the nasal shields, through the middle of the tympanum, to the groin, reappearing on the tail; the lowermost extends from the chin-shields to the arm and from behind the arm to the groin, and becomes converted into the series of blue spots which follows the side of the belly in many adults.

The variations, starting from the above type, are as follows: (*a*) The vertebral streak on the nape disappears; (*b*) the three median streaks are reduced to one on the body from between the shoulders (Tanga, Ndi); (*c*) the median streaks are reduced to one pair on the neck, which fuse between the shoulders or at some distance further down the body (typical *E. spekii*).

The light streaks are usually retained in the adult, but the ground-colour between them is grey, pale brown, or reddish, with black spots usually in the form of cross-bars; upper lip often blackish; tail reddish towards the end. Some specimens, mostly with the subocular bordering the mouth, with 5 light streaks on the body (*E. spekii*), others with 6 (*E. sextæniata*). In a series of 16 specimens from Takanugu, one conforms to *E. sextæniata* in the 6 streaks and in the subocular not reaching the mouth, one to *E. spekii*, whilst the others agree with the latter in the subocular and with the former in the light streaks. Tornier mentions examples in which the two median dorsal streaks fuse to one half-way down the body, and one in which, after having fused in the middle of the body, they divide again to fuse once more

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on the base of the tail; he also mentions a specimen without the median streaks, there being only 4 streaks altogether.

Measurements (in millimetres):

	1.	2.	3.	4.	5.	6.
From end of snout to vent .	55	48	42	46	43	47
„ „ „ fore limb	19	17	17	16	17	17
Length of head . . .	12	11	12	11	12	12
Width of head . . .	8	7	7	7	7	7
Depth of head . . .	7	5·5	6	6	6	6
Fore limb	19	17	16	16	17	17
Hind limb	37	31	31	30	32	31
Foot	18	17	17	16	17	17
Tail	144	86	92	88	120	—

1. ♂, E. Africa (type). 2. ♀, Taru. 3. ♂, Lamu. 4. ♀, Lamu. 5. ♂, Inland of Berbera. 6. ♀, Inland of Berbera.

E. sextæniata has been described by Stejneger as a distinct species on the ground of the exclusion of the subocular from the labial margin, coupled with the presence of 6 light streaks instead of 5. But, as shown by Tornier, and as I am able to confirm, the two characters do not always go hand in hand, and there are besides intermediate conditions, such as the subocular reaching the oral border on a small point only, or incompletely severed from the labial below it. Although it is a fact that the condition of the subocular is pretty constant in specimens from one and the same locality, I do not think the retention of *E. sextæniata* on this character alone would be justified even as a variety. I have, nevertheless, in the following table, arranged the specimens in two groups according to this character, in order to convey a correct idea of the variation in the series at my disposal. I must add, however, that 40 specimens collected at Morogoro by Mr. A. Loveridge answer, without an exception, to the definition of the typical *E. spekii*.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
A. Subocular bordering mouth.									
♂ E. Africa (type)	55	66	6	28	8	25	14	22	4
„ „ „	45	64	6	27	9	22	17 18	23	4 5
„ Takanugu	49	70	6	25	7	22	17–18	24	4–5
„ „	48	68	6	25	7	22	18	23	4
„ „	47	66	6	25	9	21	20–18	23	4
„ „	45	71	6	25	10	26	16	23	5–4
„ „	45	77	6	27	7	22	17	22	4
„ „	36	76	6	26	10	23	16	24	4

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	1.	2.	3.	4.	5.	6.	7.	8.	9.
♀ Takanugu	50	68	6	29	8	22	16–15	21	5–6
„ „	49	73	6	30	8	24	18–17	22	5–4
„ „	49	71	6	29	8	21	18 17	22	5–4
„ „	44	69	6	29	6	24	16–18	22	4
„ „	42	70	6	29	7	22	17	26	4
„ Tanga	45	63	6	28	8	21	16	23	5
„ Taru	48	69	6	27	8	20	15	24	4
♂ Morogoro	49	73	6	29	8	27	17	25	4–5
„ „	48	69	6	27	7	20	17	22	4
„ „	45	72	6	27	9	23	14–15	22	4–5
„ „	44	77	6	27	7	25	14	25	4
„ „	44	74	6	27	8	22	14	23	5–4
♀ „	56	75	6	30	11	25	16 17	24	4
„ „	48	65	6	28	9	21	15	22	4
„ „	48	64	6	30	9	27	15–14	23	4
„ „	48	74	6	29	7	23	14–15	23	4
„ „	43	69	6	28	7	24	16–17	23	5–4
♂ S. of L. Victoria	48	63	6	27	8	22	14	24	5
♀ Ndi, Uganda	42	65	6	28	7	20	14	23	5
B. Subocular not bordering mouth.									
♂ Lamu	42	64	6	25	7	18	15–14	20	5
♀ „	46	70	6	26	7	19	14	20	5
„ Takanugu	47	75	6	28	7	22	16–15	23	6–5
„ N. of L. Rudolf	51	64	6	27	8	19	14 15	22	6–5
♂ Boran Country	47	71	6	24	8	19	14	23	7–6
♀ W. of Juba R.	45	62	6	28	9	20	13	22	7
♂ Dolo	49	65	6	25	9	20	13 12	22	5–6
„ Lugh	45	65	6	24	8	20	13	23	6
„ Berbera	41	63	6	26	7	19	13–14	22	6
„ Inland of Berbera	43	66	6	25	8	21	14	23	5
„ „	41	60	6	23	8	17	13	22	5
„ „	40	66	6	27	8	22	17–16	23	5–6
„ „	39	68	6	25	7	21	15–16	23	5
♀ „	47	67	6	28	7	23	14–15	23	5
„ „	43	67	6	26	10	17	14–15	24	5–4
„ „	40	71	6	27	8	22	15–16	24	5

Habitat.—East Africa, from Uganda to as far south as 6° lat. S., Somaliland and Southern Abyssinia.

4. EREMIAS LUGUBRIS.

Lacerta lugubris, A. Smith, Mag. N. H. ii, 1838, p. 93.

Eremias lugubris, Dum. & Bibr. Erp. Gén. v, p. 309 (1839); A. Smith, Ill. Zool. S. Afr., Rept. pl. xlvi, fig. 2, and pl. xlviii, fig. 5 (1845); Gray, Cat. Liz. p. 41 (1845); Peters, Mon. Berl. Ac. 1862, p. 18, and 1870, p. 114; Boulenq. Cat. Liz. iii, p. 84 (1887); Boettg.

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Ber. Senck. Ges. 1894, p. 90; Bocage, Herp. Angola, p. 31 (1895); Werner, Jena. Denkschr. xvi, 1910, p. 330; Methuen & Hewitt, Ann. Transv. Mus. iv, 1914, p. 138; Bouleng. Journ. Zool. Res. iii, 1918, p. 3, and C. R. Ac. Sc. Paris, clxviii, 1919, p. 78.

Eremias dorsalis, Dum. & Bibr. t.c. p. 305; Gray, l.c.

Head and body moderately depressed. Head $1\frac{1}{3}$ to $1\frac{1}{2}$ times as long as broad, its length $3\frac{1}{3}$ to 4 times in length to vent in males, 4 to $4\frac{1}{3}$ times in females, its depth equal to the distance between the anterior corner of the eye and the tympanum; snout pointed, as long as the postocular part of the head; nasals feebly swollen; canthus sharp, loreal region feebly concave; a shallow frontal concavity, extending to the middle or the posterior extremity of the frontal shield. Pileus $1\frac{3}{4}$ to 2 times as long as broad. Neck as broad as the head or a little constricted. Hind limb reaching the eye or between the ear and the eye in males, the ear or between the ear and the eye, rarely the eye, in females; foot $1\frac{2}{5}$ to $1\frac{2}{3}$ times the length of the head; toes slender, feebly compressed. Tail 2 to $2\frac{3}{5}$ times as long as head and body.

Upper head-shields flat, smooth. Nasals in contact behind the rostral,* the suture between them $\frac{1}{6}$ to $\frac{1}{2}$ the length of the frontonasal, which is as long as broad or broader than long; prefrontals as long as broad or a little longer, forming a median suture; frontal as long as or shorter than its distance from the end of the snout, $1\frac{1}{2}$ to $2\frac{1}{4}$ times as long as broad, separated from the supraoculars by a series of small scales; parietals as long as broad or broader, not longer than the frontoparietals; interparietal much smaller than the frontoparietals; occipital small or minute, often separated from the interparietal by a small shield, sometimes absent. Two large supraoculars, the first separated from the anterior loreal by one to four series of small scales or granules, the space filled by them equal to or a little shorter than the distance between the two shields; small granular scales behind the second supraocular; 5 to 7 superciliaries, first longest; a series of small scales between the supraoculars and the superciliaries, or one series in front and two behind, rarely two throughout. Three nasals, posterior smallest, lower in contact with the rostral and the first upper labial†; anterior loreal as long as deep or deeper, shorter than the second, or, rarely, longer than deep and as

* In a female from Ponang Kuma, Mossamedes, the rostral is produced above and separates the nasals. The same specimen is anomalous in having the frontonasal and prefrontals broken up into 10 shields.

† In the type of *E. dorsalis* and in a male from Lower Nosob (Kimberley Museum), the lower nasal on the left side is in contact with the first and second labials; the same exception, on both sides, in a female from Ky Ky.

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long as the second; 4, 5, or 6 upper labials to below the centre of the eye; subocular keeled below the eye, much narrower beneath than above, and bordering the mouth. An elongate, keeled upper temporal anteriorly, sometimes followed by 2 to 4 smaller shields, sometimes separated from the parietal by a series of small scales; temporal scales smooth or obtusely keeled, upper very small, lower larger; a narrow tympanic shield; no auricular denticulation, or only 2 to 4 projecting granules. Lower eyelid opaque or semitransparent, with feebly enlarged scales in the middle.

4 or 5 pairs of chin-shields, the 3, rarely 2 or 4, anterior in contact in the middle; 21 to 29 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate; no gular fold. Collar curved, free, composed of 6 to 11 plates.

Scales rhombic, diagonally keeled on the back, usually squarish or hexagonal and smooth on the vertebral line, larger and smooth towards the ventrals; 66 to 87 scales across the middle of the body, usually 70 to 81. Ventral plates in 6 (rarely 8) straight longitudinal and 25 to 30 transverse series, most of them often at least twice as broad as long, the outer, when 8 longitudinal series are reckoned, not broader than long. Preanal region covered with numerous small scales, mostly irregular, often in even numbers.

Scales on upper surface of tibia rhombic, subimbricate, keeled, as large as or a little larger than dorsals; one series of very large and one of small plates on the lower surface. 12 to 18 femoral pores on each side, usually 13 to 17. Subdigital lamellae bi- or tricarinate, 25 to 29 under the fourth toe.

Upper caudal scales very oblique, truncate behind, strongly and diagonally keeled, lower feebly keeled, or even smooth in the basal part of the tail; 20 to 26 scales in the fourth or fifth whorl.

Coloration very variable, and young usually remarkable for a very aberrant livery.

One young, from Huxe, Benguella, is very similar to *E. spekii*. Greyish brown above, with black spots forming cross-bars between the white dorsal streaks, three in number, the median forked on the nape; lower parts white; tail red. All other young examined from Angola and Bechuanaland are of a deep black above and beneath, with yellowish-white markings* and bright red tail. The markings usually

* Peters, in 1862, stated that these markings are vermilion red, like the tail. I think this must be a mistake, for freshly-preserved specimens, in which the bright red is retained on the tail, have the markings on the head, body, and limbs yellowish white. A. Smith's original description (1838) is as follows: "Colour of the body, above and below, deep black or brown more or less tinted

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consist of a spot on the upper surface of the snout and a streak on the upper border of the orbit, an elongate spot on the upper lip in front of the eye, a bar behind and below the eye, another behind the ear, a round spot above the shoulder, three longitudinal streaks on the body, the median forked on the nape, and round spots on the limbs. The three streaks, or only the dorsolateral, may be broken up, some young having 4 nuchal and 3 dorsal series of elongate spots.

The light streaks are uninterrupted in all the half-grown and adult specimens examined, and are sometimes black-edged. The adults are greyish, yellowish or reddish brown above, with more or less distinct small black spots or vermiculations between the streaks, the limbs with light, dark-edged ocellar spots; the vertebral streak, the only one present in the type of *E. dorsalis*, is usually continued some way down the tail, which is reddish, sometimes with a dark lateral streak; upper lip and lower parts white.

It is quite evident, from specimens in process of casting the juvenile livery, that the series of spots which distinguish some young are gradually connected so as to form the continuous streaks which seem to be constantly present in all adults, and this is particularly noteworthy as contrary to the rule in lizards, in fact an inversion of the process which has been laid down as a law by Eimer and others, as has been explained above when dealing with *Lacerta* and *Nucras*. There are, however, exceptions to all rules, and this one appears to fall in with the frequent cases of deviation from the straight course of evolution, as exemplified by larval forms in so many groups of the animal kingdom. It seems that in this *Eremias* the black colour of the lower parts and the discontinuous dorsal streaks are to be looked upon as such a break in the straight course of evolution. That this eccentric livery is not yet fixed is shown by the young specimen from Huxe, noticed above, which has not deviated from the normal course.

Measurements (in millimetres):

	1.	2.	3.	4.	5.
From end of snout to vent .	56	58	48	54	65
,, ,, ,, fore limb	22	21	19	20	23
Length of head . . .	14	14	12	14	15

with black, and above variegated with three golden yellow longitudinal stripes, either continuous or interrupted, the central stripe bifid near the head; tail generally light red; extremities black or brownish, with yellow spots." In his later description (1845) he adds: "I am not acquainted with any lizard which varies so greatly in colour; some specimens are obtained almost entirely black, with three yellow lines, others with the lines broken into linear spots, and others again with the sides and back yellowish brown, variegated with lines either yellow or light buff-orange."

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	1.	2.	3.	4.	5.
Width of head	10	10	9	9	10
Depth of head	7	7	6	7	7
Fore limb	22	22	20	21	22
Hind limb	41	40	36	41	43
Foot	21	21	19	21	23
Tail	143	137	122	125	132

1. ♂, L. Ngami. 2. ♀, L. Ngami. 3. ♀, type, Bechuanaland. 4. ♂, Konondoto. 5. ♀, Konondoto.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♀ Bechuanaland (type)	48	71	6	28	?	25	16	26	5–4
„ „ „	44	73	6	30	9	25	14–13	26	4-5
„ „ (type of *E. dorsalis*), **P.M.**	59	70	8	27	7	25	14–15	26	5
♂ Mahalapye, Bechuanaland	55	87	6	27	9	23	17–18	29	5
„ L. Ngami „	56	76	6	26	9	29	17–16	27	6–5
„ „ „	56	69	6	25	11	25	14	25	5
„ „ „	56	81	6	26	9	26	15	26	5
„ „ „	55	75	6	27	11	23	12–13	27	6–5
„ „ „	47	78	6	27	8	26	16–17	26	5–6
„ „ „	43	75	6	26	10	25	15–16	26	6–5
♀ „ „	58	74	6	26	8	22	13	29	5
„ „ „	56	72	6	28	8	25	13–14	28	5
„ „ „	52	78	6	28	9	26	15–16	26	6–5
„ „ „	51	68	6	27	9	25	15–14	25	5–6
♂ Ky Ky, Gordonia, Bechuanaland, **McG.M.**	55	68	6	26	10	21	14	25	5
♀ „ „ „ „	54	66	8	26	7	21	16	26	5
♂ Lower Norob, Gordonia, Bechuanaland, **McG.M.**	57	70	6	28	9	25	15–14	28	6–5
„ „ „ „	50	70	8	28	11	25	14	25	4–5
Hgr. Notwanni, Limpopo	40	76	6	25	8	27	17–15	28	5
♂ Konondoto, Mossamedes	59	81	6	27	6	28	16	27	5
„ „ „	54	81	6	28	6	24	15–16	28	5–4
„ „ „	45	72	6	26	10	21	13	27	5
♀ „ „	65	76	6	26	8	22	13	28	5–4
♂ Ponang Kuma „	49	86	6	27	9	23	13	25	5
♀ „ „	57	82	6	28	10	26	14	28	6–5
„ „ „	48	80	6	26	7	24	14	26	5
„ Huxe, Benguella	53	76	6	25	8	21	15–16	25	4

Habitat.—Tropical South Africa (Bechuanaland, Gordonia, Northern Transvaal, Damaraland, Southern Rhodesia) and Angola.

The reported occurrence of this lizard at Mombasa (Peters, Decken's Reise, iii, p. 49) is due to a confusion with *E. spekii*.

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5. EREMIAS MUCRONATA.

Acanthodactylus mucronatus, Blanf. Zool. Abyss. p. 453, fig. (1870).

Eremias mucronata, Günth. Zool. Rec. 1870, p. 71; Bouleng. Ann. Mus. Genova (2) xii, 1891, p. 9, and Proc. Zool. Soc. 1896, p. 921, fig.; Anders. Zool. Egypt, Rept. p. 169, pl. xxiii, figs. 1 and 2 (1898); Steind. Denkschr. Ak. Wien, lxix, 1901, p. 330; Bouleng. Journ. Zool. Res. iii, 1918, p. 4.

Eremias lugubris (non A. Smith), Vaill. Miss. Révoil Pays Çomalis, Rept. p. 23 (1882).

Pseuderemias lineolata, Boettg. Abh. Senck. Ges. xiii, 1883, p. 118.

Boulengeria mucronata, Lataste, Ann. Mus. Genova (2) ii, 1885, p. 117.

Eremias brenneri, part., Bouleng. Cat. Liz. iii, p. 86 (1887).

Head and body strongly depressed. Head $1\frac{1}{2}$ to $1\frac{3}{4}$ times as long as broad, its length $3\frac{1}{2}$ to 4 times in length to vent in males, $3\frac{4}{5}$ to $4\frac{1}{4}$ times in females, its depth equal to the distance between the anterior corner or the centre of the eye and the tympanum; snout acutely pointed, $1\frac{1}{2}$ times as long as the postocular part of the head, nasals not or but feebly swollen, canthus sharp, loreal region feebly concave; a well-marked concavity on the upper surface of the snout, extending along the frontal shield. Pileus 2 to $2\frac{1}{3}$ times as long as broad. Neck as broad as the head or a little constricted. Hind limb reaching the eye or between the eye and the nostril in males, the eye or between the ear and the eye in females; foot $1\frac{1}{3}$ to $1\frac{3}{5}$ times as long as the head; toes slender, strongly compressed. Tail 2 to 3 times as long as head and body.

Upper head-shields flat, smooth, sometimes a little rugose and pitted. Nasals in contact behind the rostral, the suture between them $\frac{1}{6}$ to $\frac{1}{2}$ the length of the frontonasal, which is as long as broad or a little longer than broad; prefrontals longer than broad, forming a suture in the middle; frontal shorter than its distance from the end of the snout, $1\frac{3}{4}$ to $2\frac{1}{4}$ times as long as broad, narrow behind, separated from the supraoculars by a series of small scales, the series rarely double in front; parietals as long as broad or broader than long, not longer than the frontoparietals; interparietal small, separated from the small occipital by one shield, rarely by two. Three supraoculars, in contact with each other, first as long as or shorter than the second and occasionally more or less divided; 6 or 7, rarely 5 or 8, superciliaries, first longest, separated from the second and third

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supraoculars by one, rarely two, series of small scales. Four nasals, two upper and two lower; anterior loreal as long as deep or a little longer than deep, much shorter than the second; 5 to 8 upper labials anterior to the centre of the eye, the two or three first in contact with the lower nasals; subocular keeled below the eye, often narrowly bordering the mouth,* sometimes resting on two or three upper labials. A long and narrow upper temporal, followed by 2 or 3 small shields; temporal scales granular, smooth; a narrow tympanic shield; no auricular denticulation. Lower eyelid opaque, covered with small scales.

4 pairs of chin-shields, rarely 5,† the 2 or 3 (rarely 4) anterior in contact in the middle; 22 to 33 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate; no gular fold. Collar curved, free, composed of 7 to 12 plates.

Scales granular, juxtaposed, smooth or, rarely, feebly keeled, 61 to 78 across the middle of the body. Ventral plates in 6 or 8 longitudinal and 24 to 29 transverse series, broader than long, the outer, when 8 series are present, very narrow or nearly as broad as long. Preanal plate sometimes large, broader than long, and bordered by a semicircle of small plates, or as long as broad and entirely surrounded with small plates; occasionally two enlarged plates side by side, or three forming a triangle, or preanals quite irregular.

Upper surface of fore limb with large, smooth, hexagonal plates; a series of transversely enlarged plates under the forearm. Upper surface of tibia with rhombic keeled scales of unequal size, much larger than dorsals; lower surface with one row of very large and one of small plates. 15 to 23 femoral pores on each side.‡ 21 to 26 unicarinate lamellæ under the fourth toe.

Upper caudal scales oblique, truncate behind, strongly and diagonally keeled; lower caudal scales also keeled, except at the base of the tail, or nearly smooth; 16 to 26 scales in the fourth or fifth whorl.

Young with five dark dorsal stripes separated by white streaks, the vertebral stripe uniform black, the others brown or blackish speckled with white; limbs blackish, with round white spots. These markings sometimes persisting in adult females. Lower parts white. Adult

* In 43 cases out of 94 (the two sides sometimes differing). As in *E. spekii* one or the other type predominates in a district. Thus the subocular borders the mouth in most specimens from Somaliland, whilst it is the reverse in those from the West Coast of the Red Sea.

† In a specimen from Obok and in another from Durrur there are 4 shields on one side and 5 on the other.

‡ A male from Mandah is remarkable for having a pair of additional pores in front of the point where the two series meet in the middle.

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whitish, pale grey, yellowish, or pale buff above, speckled, marbled, or vermiculate with blackish or rust-red, with a more or less distinct, black or dark, light-edged vertebral stripe, often prolonged on the tail; temples sometimes with black vertical bars; limbs with large dark marblings or a wide-meshed network; sides of tail often with blackish lines corresponding with the posterior borders of the whorls.

Measurements (in millimetres):

	1.	2.	3.	4.	5.
From end of snout to vent	51	50	47	50	50
„ „ „ fore limb	20	19	18	18	18
Length of head	14	14	13	13	12
Width of head	8	8	8	7·5	7
Depth of head	6	6	6	6	5·5
Fore limb	19	19	18	18	18
Hind limb	40	43	38	40	38
Foot	22	22	20	21	20
Tail	115	140	125	122	118

1. ♂, Anseba Valley (type). 2. ♂, Ras Beilul. 3. ♂, Mt. Sinai. 4. ♀, Goolis Mts. 5. ♀, Berbera.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Mt. Sinai	47	68	8	25	8	28	18	24	5–6
♀ Summit, Red Sea Prov.	45	73	8	28	8	33	19–17	23	6
♂ Durrur, N. of Suakin	48	67	6	26	8	26	18	25	6–5
„ „ „	47	76	6	25	10	28	19–17	23	6
„ „ „	47	75	6	25	10	30	18–17	25	7–6
„ „ „	47	72	8	25	8	31	18–17	22	7–6
„ „ „	44	65	8	27	8	29	18	22	6
„ „ „	42	61	6	24	8	25	15–17	25	6–5
♀ „ „	46	73	8	27	7	29	17	25	5
„ „ „	46	78	8	27	10	27	16–18	24	6
„ „ „	45	72	8	28	10	32	18–19	22	6–7
„ „ „	44	71	8	26	7	27	19–20	22	5
♂ Suakin	49	64	8	26	9	33	19–20	23	6–5
„ „	48	70	6	26	8	30	19–18	23	7–5
„ „	47	67	8	25	11	33	19–18	22	6–5
„ „	47	68	8	25	9	25	20–19	22	5–6
„ „	47	64	8	26	10	24	17	23	6
♀ „	48	74	8	27	10	32	19	25	5
„ „	47	62	6	27	7	28	16–15	22	6–5
„ „	47	72	6	26	8	28	17–16	23	5–6
„ „	47	66	6	27	8	29	16–17	24	6–5
„ „	47	71	8	26	9	29	16–18	25	5–6

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	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Anseba, Eritrea (type)	51	62	8	25	9	28	18	25	6–7
„ Walker's Torrent „	46	65	8	25	10	27	15–16	22	6
„ Ras Beilul, Assab	50	70	8	27	8	29	19–18	24	7
„ „ „	50	78	8	24	10	30	19–20	25	7
„ „ „	47	76	6	27	8	30	17	26	7
„ Assab	52	67	6	26	11	26	19	26	8–6
„ Obok	48	71	8	27	8	32	17	25	8–7
„ „ **P.M.**	47	67	8	27	9	28	19–18	26	6
♀ „ „	45	70	8	28	9	26	17	25	6
„ Djibouti	43	72	8	24	8	27	18–20	21	6–5
♂ Mandah, Somaliland	49	74	6	26	9	30	19–20	25	8
„ „ „	45	77	8	26	8	26	19	24	6
„ „ „	42	75	6	27	12	26	23–22	25	6
♀ „ „	49	70	8	28	12	28	19–18	24	7–6
♂ Berbera „	52	66	8	28	9	28	21	25	6
„ „ „	45	67	8	24	11	23	21–20	22	6
♀ „ „	50	62	8	27	10	24	17–16	22	6
„ „ „	50	68	6	27	10	28	20–19	23	6
♂ Inland of Berbera	49	66	6	25	9	26	19–20	24	6
„ „	49	70	6	26	10	24	18	25	5
♀ Goolis Mts. Somaliland	50	70	8	26	7	25	17–16	25	6
„ Zaila „	45	72	6	28	9	26	22–21	25	6
„ „ „	42	68	6	28	7	25	19	25	6
„ Biji „	44	69	6	28	7	22	16–17	24	6–5
♂ Laffarugh-Aberis „	47	68	6	25	7	26	22	25	6–5

Habitat.—Sinaitic Peninsula, West Coast of the Red Sea (as far north as Mersa Alaïbo, Egypt), Eritrea, Somaliland. A specimen from Sukkur, Sind, associated with two *Acanthodactylus cantoris*, is preserved in the Bombay N.H. Society's Museum.*

Although not widely remote from *E. spekii* and *E. lugubris*, this and the four following species constitute a very distinct section, characterized by the four nasal shields (a character which occurs also, exceptionally, in the section *Eremias* proper), strongly compressed and unicarinate toes, and by the *ensemble* of the characters, the five species being very closely allied.

6. EREMIAS SMITHII.

Eremias smithii, Bouleng. Proc. Zool. Soc. 1895, p. 534, pl. xxix, fig. 4, and 1896, p. 925, fig., and Ann. Mus. Genova (2) xvii, 1896, pp. 9, 19; Lönnberg, Svensk. Vetensk. Ak. Handl. xlvii, 1911, no. 6, p. 15; Bouleng. Journ. Zool. Res. iii, 1918, p. 4.

* I suggested to the curator, Mr. Kinnear, the possibility of an error in the locality, but he assures me he feels confident that the indication is trustworthy.

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Head and body strongly depressed. Head $1\frac{1}{2}$ to $1\frac{3}{5}$ times as long as broad, its length $3\frac{3}{4}$ to $4\frac{1}{2}$ times in length to vent, its depth equal to the distance between the anterior corner of the eye and the tympanum; snout pointed, a little longer than the postocular part of the head, nasals not or but feebly swollen; canthus sharp, loreal region feebly concave; a well-marked concavity on the upper surface of the snout, extending all along the frontal shield. Pileus 2 to $2\frac{1}{4}$ times as long as broad. Neck as broad as the head or a little constricted. Hind limb reaching the eye or between the ear and the eye in males, the ear in females; foot $1\frac{1}{2}$ times as long as the head; toes slender, strongly compressed. Tail $2\frac{1}{4}$ to $2\frac{3}{4}$ times as long as head and body.

Upper head-shields flat, rugose, sculptured and pitted but not striated. Nasals in contact behind the rostral, the suture between them $\frac{1}{3}$ to $\frac{1}{2}$ the length of the frontonasal, which is broader than long; prefrontals a little longer than broad, forming a suture in the middle; frontal as long as or a little shorter than its distance from the end of the snout, $1\frac{3}{4}$ to 2 times as long as broad, narrow behind, separated from the supraoculars by a series of small scales, rarely with a second incomplete series; parietals broader than long, not longer than the frontoparietals; interparietal very small; occipital very small, usually separated from the interparietal by one or two small shields, rarely absent. Three supraoculars, in contact with each other, first as long as or a little shorter than second; 5 to 7 superciliaries, first longest, separated from the second and third supraoculars by a series of small scales. Four nasals, two upper and two lower; anterior loreal as long as deep or a little longer than deep, much shorter than the second; 5 to 7 upper labials anterior to the centre of the eye, the two first in contact with the lower nasals; subocular keeled below the eye, not reaching the mouth, resting on the fifth and sixth, sixth and seventh, or seventh and eighth upper labials. A long and narrow upper temporal, followed by 1 to 3 small shields; temporal scales granular, smooth; a narrow tympanic shield; no auricular denticulation. Lower eyelid opaque, covered with small scales.

4 pairs of chin-shields, the 2 or 3 anterior in contact in the middle; 25 to 37 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate; no gular fold. Collar curved, free, composed of 7 to 11 plates.

Scales granular, juxtaposed, smooth, 68 to 82 across the middle of the body. Ventral plates in 8, rarely 10, straight longitudinal and 26 to 30 transverse series, all except the outer broader than long. Preanal region with small shields or with an enlarged median shield, as long as broad or broader than long, entirely surrounded by small shields.

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Upper surface of fore limb with smooth scales; lower surface of forearm with one or two series of enlarged scales; upper surface of tibia with rhombic keeled scales, which are larger than the dorsals; lower surface with one row of very large and one row of small plates. 17 to 23 femoral pores on each side. 20 to 24 unicarinate lamellæ under the fourth toe.

Upper caudal scales oblique, strongly and diagonally keeled, lower feebly keeled; 26 to 32 scales in the fourth or fifth whorl.

Pale reddish brown or brick-red above, with 5 more or less distinct dark brown or blackish streaks on the nape and 3 on the back, and 2 on each side of the body; the dark streaks with rows of round white or bluish spots; some specimens spotted all over with yellowish white, irrespective of the dark streaks; limbs with round pale spots; the vertebral streak extends on the tail. Lower parts white.

Measurements (in millimetres):

	1.	2.	3.
From end of snout to vent . .	44	47	44
„ „ „ fore limb .	18	18	17
Length of head	11	12	10
Width of head	7	8	6·5
Depth of head	5	6	5
Fore limb	16	18	15
Hind limb	33	35	32
Foot	16	18	16
Tail	126	—	102

1. ♂, Milmil (type). 2. ♂, Berbera. 3. ♀, Lugh.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Milmil (type) . .	46	75	8	30	7	37	19	24	6
„ „ **G.M.** . .	44	72	8	26	9	—	20	—	6
„ Lugh „ . .	44	75	8	28	9	—	17	—	6
„ „ . .	42	82	8	26	11	32	20	24	7
„ „ **G.M.** . .	40	75	8	27	10	35	22–21	23	6
♀ „ „ . .	44	74	8	30	9	28	18	24	6
♂ Jifa Uri, nr. Zaila .	40	68	8	26	10	25	18	20	5
„ Berbera . . .	47	70	8	29	9	36	19	20	6
„ „ . . .	47	70	10	28	9	34	20	24	6
„ „ . . .	37	80	8	27	10	31	22	23	6–5

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	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Berbera . . .	35	77	8	30	7	32	23–22	23	5–6
♀ „ . . .	37	68	8	28	8	28	19	24	6

Habitat.—Somaliland (West and South) and British East Africa (plain North of Guaso Nyiri).

7. EREMIAS ERYTHROSTICTA.

Eremias erythrosticta, Boulenger, Ann. Mus. Genova (2), xii, 1891, p. 10, pl. i, fig. 2, Proc. Zool. Soc. 1896, p. 924, fig., and Journ. Zool. Res. iii, 1918, p. 4.

Head and body strongly depressed. Head $1\frac{2}{3}$ to 2 times as long as broad, its length $3\frac{1}{2}$ to $3\frac{2}{3}$ times in length to vent, its depth equal to the distance between the centre of the eye and the tympanum; snout acutely pointed, twice as long as the postocular part of the head, nasals more or less swollen, canthus sharp, loreal region concave; a concavity on the upper surface of the snout, extending to the middle of the frontal shield. Pileus $2\frac{1}{4}$ to $2\frac{1}{3}$ times as long as broad. Neck as broad as the head. Hind limb reaching the eye or halfway between the eye and the nostril; foot $1\frac{2}{5}$ to $1\frac{1}{2}$ times as long as the head; toes slender, strongly compressed. Tail 2 to $2\frac{1}{2}$ times as long as head and body.

Upper head-shields flat, smooth. Nasals in contact behind the rostral, the suture between them $\frac{1}{4}$ to $\frac{1}{2}$ the length of the frontonasal, which is longer than broad; prefrontals longer than broad, forming a suture in the middle; frontal shorter than its distance from the end of the snout, $1\frac{3}{4}$ to 2 times as long as broad, narrow behind, separated from the supraoculars by a series of small scales; parietals as long as broad, longer than the frontoparietals; interparietal small or very small, separated from the very small occipital by one, two, or three shields. Three supraoculars, the first shorter than the second and usually separated from it by a series of small scales; 5 superciliaries, first largest, separated from the second and third supraoculars by a series of small scales. Four nasals, two upper and two lower; anterior loreal $1\frac{1}{2}$ to 2 times as long as deep, shorter than the second; 6 or 7 upper labials anterior to the centre of the eye, the two first in contact with the lower nasals; subocular keeled below the eye, resting on two upper labials. A narrow upper temporal or a series of small shields; temporal scales granular, obtusely keeled; a small tympanic shield; no auricular denticulation. Lower eyelid opaque, covered with small scales.

4 pairs of chin-shields, the 2 or 3 anterior in contact in the middle;

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28 to 36 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate; no gular fold. Collar curved, free, composed of 6 to 9 plates.

Scales granular, round or hexagonal, juxtaposed, keeled, 53 to 60 across the middle of the body. Ventral plates in 8 straight longitudinal and 24 to 27 transverse series, those of the 6 principal longitudinal series much broader than long, the outer nearly as long as broad. Preanal region covered with several irregular shields disposed in pairs; a median enlarged shield very seldom present.

Upper surface of fore limb with large, smooth, hexagonal plates; a series of transversely enlarged plates under the forearm. Upper surface of tibia with rhombic keeled scales of unequal size, much larger than the dorsals; lower surface with one row of very large and one of small plates. 15 to 20 femoral pores on each side, usually 17 to 19. 23 or 24 unicarinate lamellæ under the fourth toe.

Upper caudal scales oblique, truncate behind, feebly and diagonally keeled on the basal part of the tail; 20 to 24 scales in the fourth or fifth whorl.

Adult sandy grey or buff above, with brick-red or black and red dots; tail uniform or spotted with bluish grey or black, one spot to each scale; young with five grey longitudinal streaks, which may be broken up by round whitish spots; traces of the dark streaks may persist in the female. Lower parts white.

Measurements (in millimetres):

	♂	♀
From end of snout to vent . . .	52	47
,, ,, ,, fore limb . .	21	18
Length of head	15	13
Width of head	9	7
Depth of head	6	5
Fore limb	20	18
Hind limb	41	38
Foot	21	18
Tail	130	98

Habitat.—Somaliland. Numerous specimens were collected by Sig. L. Bricchetti Robecchi on the route from Obbia to Berbera. Most of the specimens are preserved in the Genoa Museum.

8. EREMIAS STRIATA.

Eremias brenneri, var. *striatus*, Peters, Mon. Berl. Ac. 1874, p. 370.
Eremias hoehneli, Stejneg. Proc. U.S. Nat. Mus. xvi, 1894, p. 719.

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Eremias striata, Boulenq. Ann. Mus. Genova (2) xvii, 1896, p. 18, Proc. Zool. Soc. 1896, p. 927, fig., and Journ. Zool. Res. iii, 1918, p. 4.

Head and body strongly depressed. Head $1\frac{1}{2}$ to $1\frac{3}{4}$ times as long as broad, its length $3\frac{2}{3}$ to 4 times in length to vent, its depth equal to the distance between the centre of the eye and the tympanum; snout pointed, a little longer than the postocular part of the head, nasals not or but feebly swollen, canthus sharp, loreal region feebly concave; a rather feeble concavity on the upper surface of the snout, extending along the frontal shield. Pileus 2 to $2\frac{1}{4}$ times as long as broad. Neck a little narrower than the head. Hind limb reaching the eye or between the eye and the nostril; foot $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as the head; toes slender, strongly compressed. Tail $2\frac{1}{3}$ to 3 times as long as head and body.

Upper head-shields flat, striated, more coarsely than in *E. brenneri.* Nasals in contact behind the rostral, the suture between them $\frac{1}{3}$ to $\frac{1}{2}$ the length of the frontonasal, which is as long as broad or a little broader than long; prefrontals a little longer than broad, forming a suture in the middle; frontal shorter than its distance from the end of the snout, $1\frac{2}{3}$ to $1\frac{3}{4}$ times as long as broad, narrow behind, separated from the supraoculars by a series of small scales; parietals as long as broad or broader than long, not longer than the frontoparietals; interparietal small but much larger than the occipital, from which it is often separated by a small shield. Three supraoculars, in contact with each other, first as long as or a little shorter than second; 5 or 6 superciliaries, first longest, separated from the second and third supraoculars by a series of small scales. Four nasals, two upper and two lower; anterior loreal $1\frac{1}{3}$ to 2 times as long as deep, shorter than the second; 5 or 6* upper labials anterior to the centre of the eye, the two first in contact with the lower nasals; subocular keeled below the eye, much narrowed beneath and bordering the mouth. An elongate upper temporal, followed by 2 or 3 small shields; temporal scales granular, obtusely keeled; a narrow tympanic shield; no auricular denticulation. Lower eyelid opaque, covered with small scales.

4 pairs of chin-shields, the 3 anterior in contact in the middle.† 24 to 30 gular scales in a straight line between the symphysis of the

* 4 in one of the specimens described by Peters.

† *Eremias hoehneli* is founded on a specimen which, in my opinion, represents an individual anomaly in the pholidosis, as Stejneger himself has suggested. The first lower labial meets its fellow behind the symphysial, having fused with the first chin-shield, whilst the third chin-shield has also fused with the corresponding lower labial.

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chin-shields and the median collar-plate; no gular fold. Collar curved, free, composed of 8 to 12 plates.

Scales rhombic, juxtaposed, keeled, 53 to 67 across the middle of the body. Ventral plates in 8 straight longitudinal and 25 to 28 transverse series, broader than long except the outer, which are narrow. A large median preanal plate, sometimes followed by another or a pair, the three forming a triangle.

Upper surface of fore limb with large hexagonal smooth plates; lower surface of forearm with a series of transverse plates. Upper surface of tibia with rhombic keeled scales, which are much larger than the dorsals. 13 to 18 femoral pores on each side. 22 to 25 unicarinate lamellæ under the fourth toe.

Upper caudal scales oblique, strongly and diagonally keeled, lower feebly keeled, smooth on the base of the tail.

Young with 4 white streaks separated by black; belly black* or blackish, at least on the sides. Adult cream-colour or pale buff above, with 7 brown or black streaks as wide as or wider than the interspaces between them; lower parts white.

Measurements (in millimetres):

	♂	♀
From end of snout to vent	47	40
,, ,, ,, fore limb	18	16
Length of head	12	10
Width of head	8	6·5
Depth of head	6	5
Fore limb	16	14
Hind limb	35	31
Foot	20	16
Tail	110	114

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Lugh	47	56	8	28	10	25	18	23	5
,, ,, G.M.	42	63	8	26	12	—	18–17	—	6
,, ,,	40	58	8	25	11	25	15	23	6
,, ,, G.M.	40	55	8	25	10	27	15	24	5
,, ,, ,,	40	57	8	26	11	—	14	—	6–5
,, ,, ,,	40	56	8	26	11	—	15–14	—	5

* A very exceptional feature, which this species shares with *E. lugubris*.

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		1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Lugh, G.M.		38	67	8	25	10	—	15–14	—	6
,, ,, ,,		35	63	8	25	11	26	17–16	25	5
♀ ,,		40	65	8	26	10	26	15–14	22	5
,, ,, G.M.		40	56	8	26	11	—	17	—	6
,, ,, ,,		39	66	8	27	9	26	15	23	5–6
,, ,, ,,		39	53	8	28	10	—	16–15	—	5
Yg. ,,		25	61	8	26	9	27	13–14	—	5
,, ,, G.M.		23	58	8	27	10	27	17–18	24	6
♂ Webi-Shebeli. G.M.		41	58	8	26	11	24	15	25	5
♀ Webi-Ganana, ,,		43	60	8	26	8	29	14	22	5–6

Habitat.—Somaliland. The type specimens, preserved in the Berlin Museum, are from Brava. Numerous specimens were received by the Genoa Museum, and the present description is taken from them.

9. EREMIAS BRENNERI.

Eremias brenneri, Peters, Mon. Berl. Ac. 1869, p. 432; Bouleng. Ann. Mus. Genova (2) xii, 1891, p. 8; Stejneg. Proc. U.S. Nat. Mus. xvi, 1894, p. 719; Bouleng. Ann. Mus. Genova (2) xvii, 1896, p. 18, Proc. Zool. Soc. 1896, p. 928, fig., and Journ. Zool. Res. iii, 1918, p. 4.

Boulengerina brenneri, Lataste, Ann. Mus. Genova (2) ii, 1885, p. 117.

Eremias brenneri, part., Bouleng. Cat. Liz. iii, p. 86 (1887).

Eremias edwardsii, Mocquard, Mém. Cent. Soc. Philom. p. 115, pl. xi, fig. 1 (1888).

Head and body strongly depressed. Head $1\frac{2}{3}$ to 2 times as long as broad, its length 4 to $4\frac{1}{2}$ times in length to vent, its depth equal to the distance between the anterior corner of the eye and the tympanum; snout acutely pointed, longer than the postocular part of the head, nasals not or but feebly swollen; canthus rostralis sharp, loreal region feebly concave; a strong concavity on the upper surface of the snout, extending on the frontal shield. Pileus $2\frac{1}{5}$ to $2\frac{1}{3}$ times as long as broad. Neck as broad as the head. Hind limb reaching the eye or the nostril; foot $1\frac{1}{2}$ times as long as the head; toes slender, compressed. Tail 2 to $2\frac{1}{2}$ times as long as head and body.

Upper head-shields flat, closely and finely striated. Nasals in contact behind the rostral; frontonasal as long as broad or longer than broad; prefrontals longer than broad; frontal as long as its

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distance from the end of the snout, twice as long as broad, narrow behind, separated from the supraoculars by a series of small scales; parietals as long as broad or a little broader than long, not longer than the frontoparietals; interparietal small,* usually separated from the very small occipital by another small shield. Three supraoculars, in contact with each other, first nearly as long as second, sometimes partly broken up into small scales; 7 superciliaries, first longest, separated from the second and third supraoculars by a series of small scales. Four nasals, two upper and two lower; anterior loreal a little longer than deep, much shorter than the second; 6, rarely 5, upper labials anterior to the centre of the eye, the two first in contact with the lower nasals; subocular keeled below the eye, not reaching the mouth, its lower border wedged in between the sixth and seventh (or fifth and sixth) upper labials. A long and narrow upper temporal, followed by smaller shields; temporal scales granular, keeled. Lower eyelid opaque, with small scales.

5 pairs of chin-shields, the 2 or 3 anterior in contact in the middle; 30 or 31 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate; no gular fold. Collar curved, free, with 7 to 9 shields.

Scales rhombic, juxtaposed or subimbricate, keeled, some even tricarinate, 53 to 68 across the middle of the body. Ventral plates in 6 or 8 straight longitudinal and 25 to 27 transverse series, much broader than long; if in 8 series, the outer plates very small. A more or less enlarged median preanal plate.

Scales on the limbs strongly pluricarinate; lower surface of tibia with one row of very large and one row of small plates. 20 to 24 femoral pores on each side. 21 to 24 unicarinate lamellæ under the fourth toe.

Young with six reddish white streaks along the body, separated by broader black streaks, along each of which runs a series of small round whitish spots; head reddish brown above; limbs with a black network enclosing large round reddish white spots; tail striped with black at the base, uniform coralline red in its posterior half; lower parts white. Adult uniform rufous grey, or with mere traces of the streaks and spots of the young.

Measurements (in millimetres):

	1.	2.	3.	4.
From end of snout to vent .	48	45	53	48
„ „ „ fore limb	18	15	20	18
Length of head . . .	12	10	14	12

* Divided into three in one specimen from Brava.

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	1.	2.	3.	4.
Width of head . . .	7·5	5	8	7
Depth of head . . .	6	—	6	5
Fore limb	18	15	19	17
Hind limb	36	30	42	35
Foot	19	—	20	18
Tail	105	110	123	—

1. ♀, Brava. 2. Hgr. Berbera-Obbia. 3. ♂, type of *E. edwardsii*. 4. ♀, type of *E. edwardsii*.

Habitat.—Somaliland (Brava and between Berbera and Obbia) and East Africa (Tana River).

I have examined two specimens preserved in the Genoa Museum, and the two types of *E. edwardsii* in the Paris Museum.

10. EREMIAS GUINEENSIS.

Eremias guineensis, Bouleng. Ann. & Mag. N. H. (5) xx, 1887, p. 51, and Journ. Zool. Res. iii, 1918, p. 4.

Head and body moderately depressed. Head 1¾ times as long as broad, its length 3½ times in length to vent, its depth equal to the distance between the centre of the eye and the tympanum; snout obtusely pointed, with the nasals feebly swollen, as long as the post-ocular part of the head; canthus rostralis obtuse, loreal region feebly concave. Pileus 2¼ times as long as broad. The hind limb reaches the ear; foot a little longer than the head; toes moderately slender, feebly compressed. Tail 1½ times as long as head and body.

Upper head-shields flat, smooth. Nasals in contact with each other behind the rostral, the suture between them ¼ the length of the frontonasal, which is broader than long; prefrontals a little broader than long, forming a suture in the middle; frontal as long as its distance from the end of the snout, 1½ times as long as broad; parietals as long as broad; interparietal smaller than the fronto-parietals; no occipital. Two large supraoculars, the first separated from the second loreal by two series of small scales; 4 superciliaries; a series of granules between the supraoculars and the superciliaries. Nostril between three nasals, the lower in contact with the rostral and the first upper labial, the posterior as large as the lower and also in contact with the first upper labial; anterior loreal scarcely longer than deep, shorter than second; 4 upper labials anterior to the subocular, which is keeled below the eye, much narrower beneath than above,

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and largely borders the mouth. A very long and narrow upper temporal, followed by a much shorter shield; temporal scales minute and granular above, large and hexagonal beneath; a narrow tympanic shield; no auricular denticulation. Lower eyelid scaly, opaque.

5 pairs of chin-shields, the three anterior in contact in the middle; 19 gular scales in a straight line between the symphysis of the chin-shields and the collar; no gular fold. Collar distinct only on the sides.

Scales granular, oval, smooth, 60 across the middle of the body. Ventral plates broader than long, except the outer, in 10 straight longitudinal and 26 transverse series. Two large preanal plates, one in front of the other.

Scales on upper surface of tibia granular, not larger than dorsals; one series of large and two of small plates on the lower surface. 21 femoral pores on each side. Subdigital lamellæ tricarinate, 18 under the fourth toe.

Upper caudal scales rounded behind, strongly keeled, lower feebly keeled; 22 scales in the fourth whorl.

Head pale brownish above; body black with 6 dorsal white streaks on the nape and 5 on the body, the dorsolateral proceeding from the superciliary edge; a white lateral streak from below the eye to the anterior side of the thigh, bordering the tympanum above; limbs black above, with round white spots; tail with dark and light streaks, the former 4 in number at the base, 3 further back. Lower parts white.

Measurements (in millimetres):

From end of snout to vent	24
„ „ „ fore limb	10
Length of head	7
Width of head	4
Depth of head	3
Fore limb	8
Hind limb	13
Foot	8
Tail	36

This species is known from a single young specimen, obtained by Dr. E. Hartert at Brass, mouth of the Niger. It occupies a perfectly isolated position in the genus, and I have therefore proposed to make it the type of a section, under the name of *Tænieremias*, of which a definition is given above, p. 228.

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11. EREMIAS GUTTULATA.

FORMA TYPICA.

Lacerta guttulata, Lichtenst. Verz. Doubl. Mus. Berl. p. 101 (1823); Hempr. & Ehrenb. Symb. Phys., Zool., Amph. pl. ii, fig. 1 (1899).

Lacerta olivieri, part., Aud. Descr. Egypte, Rept., Suppl. p. 175, pl. ii, fig. 1 (1829); M.-Edw. Ann. Sc. Nat. xvi, 1829, pp. 73, 84.

Scapteira punctulata, Gray, Ann. N. H. i, 1838, p. 281.

Eremias pardalis (non Licht.), Dum. &. Bibr. Erp. Gén. v, p. 312 (1839).

Mesalina pardalis, Gray, Cat. Liz. p. 43 (1845); Blanf. Zool. E. Pers. p. 377 (1876).

Eremias guttulata, A. Smith, Ill. Zool. S. Afr., Rept. pl. xlviii, fig. 8 (1845); Peters, Mon. Berl. Ac. 1880, p. 308; Nikolsky, Fedschenko's Reise, Zool. ii, pt. vii, p. 34 (1899); Doumergue, Erp. Oran. p. 198, pl. xv, fig. 1 (1901); Anders. Proc. Zool. Soc. 1901, ii, p. 145; Anderss. in Jägersk. Res. Swed. Exped. Egypt, i, no. 4, p. 7 (1904); Bouleng. Journ. Zool. Res. iii, 1918, p. 5.

Eremias (*Mesalina*) *watsonana*, Stoliczka, Proc. As. Soc. Beng. 1872, p. 86.

Mesalina pardaloides, Blanf. Ann. & Mag. N. H. (4) xiv, 1874, p. 32, and Zool. E. Pers. p. 381.

Mesalina guttulata, Blanf. Journ. As. Soc. Beng. xlviii, 1879, p. 127.

Podarces (*Eremias*) *pardalis*, Boettg. Ber. Senck. Ges. 1879–80, p. 50.

Eremias guttulata, part., Bouleng. Cat. Liz. iii, p. 87 (1887), Faun. Ind., Rept. p. 177 (1890), and Tr. Zool. Soc. xiii, 1891, p. 132; Anders. Proc. Zool. Soc. 1892, p. 15, Herp. Arab. p. 43 (1896), and Zool. Egypt, Rept. p. 174, pl. xxiii, fig. 3 (1898); Nikolsky, Herp. Ross. p. 144 (1905); Werner, Zool. Jahrb., Syst. xxvii, 1909, p. 608.

Eremias pardaloides, Bouleng. Cat. Liz. l.c.

Head and body rather strongly depressed. Head $1\frac{2}{5}$ to $1\frac{3}{5}$ times as long as broad, its length $3\frac{3}{4}$ to 4 times in length to vent in males, 4 to $4\frac{1}{2}$ times in females, its depth equal to the distance between the centre of the eye and the tympanum; snout pointed, with the nasal shields more or less swollen, as long as broad or a little longer than broad, as long as or slightly longer than the postocular part of the head; canthus rostralis obtuse or sharp, loreal region feebly concave; a more or less distinct concavity in the middle of the upper surface of the snout, extending to the middle or to the posterior extremity of the frontal shield. Pileus $1\frac{3}{4}$ to 2 times as long as broad. Neck as broad as the head or a little constricted. Hind limb reaching the collar or

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the ear, or between these two points, rarely the eye, in males, the axil or the shoulder, rarely the elbow or the ear, in females; foot $1\frac{1}{5}$ to $1\frac{2}{5}$ times as long as the head; toes rather slender, not or but slightly compressed. Tail $1\frac{2}{3}$ to 2 times as long as head and body in females, 2 to $2\frac{1}{2}$ times in males.

Upper head-shields smooth or slightly rugose. Nasals in contact with each other behind the rostral, the suture between them $\frac{1}{6}$ to $\frac{1}{3}$ the length of the frontonasal, which is as long as broad or broader than long; prefrontals as long as broad or, usually, a little longer, forming a suture in the middle, very rarely separated by a small azygos shield *; frontal usually shorter than its distance from the end of the snout, $1\frac{1}{2}$ to 2 times as long as broad, narrow behind; parietals $1\frac{1}{5}$ to $1\frac{2}{3}$ times as long as broad; interparietal as large as the frontoparietals or a little larger or a little smaller; occipital rarely more than $\frac{1}{2}$ the length of the interparietal, rarely broader than the latter,† often very small.‡ 4 supraoculars, first and fourth small, sometimes broken up into 2 or 3, first more often than not in contact with the frontal; 5, rarely 4, 6 or 7, superciliaries, first, or first and second longest; a series of granules, rarely incomplete, or one series in front and two behind, between the supraoculars and the superciliaries. 3 nasals, lower in contact with the rostral and the first upper labial §; posterior small and very rarely excluded from the nostril; anterior loreal usually twice as long as deep, sometimes only $1\frac{1}{2}$ times, exceptionally divided into 2 or 3 (1 + 1 or 2 + 1), as long as or shorter than the second, from which it is exceptionally ‖ separated by the prefrontal; 4, rarely 3 or 5, upper labials anterior to the subocular, which is keeled below the eye, and largely borders the mouth, its lower border much narrower than the upper; temporal scales small, granular, lower larger; a narrow tympanic shield; no auricular denticulation.

Lower eyelid with a transparent disc formed of two large, usually black-edged scales, one in front of the other, with or without a series of 2 to 5 small ones below them; the anterior large scale often a little larger than the other.

5 or, more frequently, 6 pairs of chin-shields, the first three in contact in the middle, the sixth narrow; 19 to 26 gular scales in a

* One male from El Kubar.

† Twice as broad in a female from the Helmand.

‡ Separated from the interparietal by a small shield in one male from Mt. Sinai and in one young from Gwadar, by the parietals meeting in the middle in one male from Puli Hatun.

§ L. G. Andersson (l.c.) mentions a specimen from Tor, Sinaitic Peninsula, in which the lower nasal is in contact with the first and second upper labials.

‖ In a single specimen from Mt. Sinai.

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straight line between the symphysis of the chin-shields and the median collar-plate; gular fold more or less distinct. Collar curved or angular, free or more or less attached, sometimes quite indistinct, in the middle, composed of 8 to 14 plates, usually 10 to 12.

Scales juxtaposed, granular, round or subrhomboidal, all smooth or, rarely, very obtusely keeled towards the tail, larger towards the ventral plates, 36 to 54 (usually 39 to 47) across the middle of the body. Ventral plates in 10, rarely 8, regular longitudinal and 27 to 34 transverse series (27 to 31 in males, 29 to 34 in females), all except the outer broader than long, the largest often twice as broad as long. Preanal plate usually large and bordered by a single semicircle of small plates in males, often small and with two or three semicircles of smaller plates in females.

Scales on upper surface of tibia rhombic and keeled, as large as or a little larger than the dorsals; one series of large and two of small plates on lower surface. 9 to 16 femoral pores on each side, usually 10 to 14. Subdigital lamellæ bi- or tricarinate, 18 to 22 (rarely 23 or 24) under the fourth toe.

Upper caudal scales oblique, truncate behind, strongly and diagonally keeled, sometimes shortly mucronate behind, lower smooth; 20 to 26 scales in the fourth or fifth whorl.

Grey, greyish brown, or reddish brown above, uniform or with scattered black dots, or with two dorsal series of black and white spots (one half black and one half white); sometimes with numerous white, black-edged ocelli and two white streaks on each side, the upper dorsolateral, the lower lateral, from below the eye, through the tympanum, to the groin. Tail sometimes with dark annuli or with vertical bars on the sides. Lower parts white, the throat sometimes dusky and the ventrals finely punctulated with dusky.

Measurements (in millimetres):

	1.	2.	3.	4.	5.	6.
From end of snout to vent	46	45	51	44	57	57
,, ,, ,, fore limb	17	17	19	16	19	22
Length of head	12	12	12	10	12	14
Width of head	7·5	7·5	7·5	6·5	7·5	9
Depth of head	5	5	5	4·5	5	6
Fore limb	18	17	16	15	18	19
Hind limb	31	28	28	25	31	35
Foot	17	15	16	14	17	18
Tail	112	113	—	90	112	105

1. ♂, Karnak. 2. ♂, Biskra. 3. ♀, Medinet Habu. 4. ♀, Biskra. 5. ♀, Neby Musa. 6. ♂, Sind.

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Habitat.—Egypt, Nubia, and Eastern Soudan, Tripoli, Tunisia, Algerian Sahara, Arabia, Syria, Transcaspia, Persia, Baluchistan, Afghanistan, Sind.

I have examined the type specimens, from Egypt, in the Berlin Museum.

Var. OLIVIERI.

Lacerta olivieri, part., Aud. Descr. Egypte, Rept., Suppl. p. 175, pl. ii, fig. 2 (1829); M.-Edw. Ann. Sc. Nat. xvi, 1829, pp. 73, 84.

Eremias guttulata (non Licht.), Dum. & Bibr. Erp. Gén. v, p. 312 (1839); Gray, Cat. Liz. p. 41 (1845); Strauch, Erp. Alg. p. 38 (1862).

Eremias pardalis (non Licht.), A. Smith, Ill. Zool. S. Afr., Rept. pl. xlviii, fig. 13 (1845); Guichen. Explor. Sc. Alg., Rept. p. 15, pl. i, fig. 2 (1850); Strauch, op. cit. p. 39.

Podarces (*Mesalina*) *simoni*, Boettg. Zool. Anz. 1881, p. 571, and Abh. Senck. Ges. xiii, 1883, p. 116, pl. i, fig. 3.

Eremias guttulata, part., Bouleng. Cat. Liz. iii, p. 87 (1887), and Tr. Zool. Soc. xiii, 1891, p. 132; Werner, Verh. Zool.-bot. Ges. Wien, xliv, 1894, p. 82; Anders. Zool. Egypt, Rept. p. 174 (1898); Werner, Zool. Jahrb., Syst. xxvii, 1909, p. 608.

Eremias guichenoti, Doumergue, Erp. Oran. p. 200, pl. xv, fig. 2 (1901).

Eremias guttulata, var. *olivieri*, Bouleng. Journ. Zool. Res. iii, 1918, p. 9.

When extreme examples of this form, from Morocco or Oran for instance, are compared with the typical form from Egypt, the differences are so striking that one would not hesitate to regard it as fully entitled to specific rank. The distinction, however, breaks down when other specimens, from the Algerian Sahara and from Sind, are taken into consideration, and I feel compelled to regard it as a variety, to designate which I use the name *olivieri*, Audouin, after elimination of the two other lizards originally confounded with it by Audouin, and which are already provided with names.

The principal differences from the typical form reside in the lepidosis of the lower eyelid, which is usually formed of a number (5 to 7) of opaque or feebly transparent enlarged scales, not edged with black, which replace the transparent disc of the true *E. guttulata*, and in the more obtuse and usually shorter snout,* the basal width of

* Well shown by the comparative outline figures in A. Smith's Illustrations.

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which does not exceed its length. There are, however, exceptions. In the Algerian Sahara* we find specimens in which the palpebral disc is nearly as perfectly transparent as in the typical form and composed of one large scale above and in front, with two smaller scales below it, or with two large scales above, and in which the snout is more pointed and slightly longer. These specimens are, however, readily distinguished from the typical form, which occurs also in the same districts, in the absence of a black line bordering the larger transparent palpebral scales. Further, there are specimens, from Sind, with two large transparent palpebral scales, less distinctly black-edged, which cannot be separated from the typical form, with which I have united them, and yet come very close to the Saharian specimens mentioned above; these lizards, from the Sahara and Sind, demonstrate the complete passage between the two extreme forms which have often been held to be specifically distinct.

The number of scales across the body (35 to 50, usually 40 to 47) and of femoral pores (9 to 15, usually 10 to 14) is practically the same as in the typical form. 27 to 36 transverse series of ventral plates. 16 to 22 lamellæ under the fourth toe.

The nasals are rather strongly swollen; the frontonasal is always broader than long†; the frontal is usually as long as its distance from the end of the snout; the occipital is, as a rule, larger than in the typical form, sometimes broader than the interparietal, but also very variable in size; anterior loreal often less than twice as long as deep, and usually shorter than the second. The preanal plate is usually smaller than in the typical form, always bordered by two or three semicircles of smaller shields, and scarcely enlarged in some females. Some specimens‡ have shorter hind limbs, reaching only the axil or the shoulder in males, the wrist or the elbow in females.

Coloration much as in the typical form, but striation predominates, and is often accompanied by regular longitudinal series of ocellar spots. Body sometimes reddish brown, with five grey longitudinal streaks; or pale sand-colour with a broad grey vertebral band edged with blackish and with two white streaks on each side; or grey with a dark brown vertebral band bordered by a series of small black spots. One specimen§ without striation but ocellated all over the back and hind limbs.

* Tuggurt, El Golea-Fort Miribel.

† In contact with the frontal in a female from Zarzis.

‡ From Morocco, Oran, Algerian Sahara, Tunisia.

§ From N'Gaous.

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Measurements (in millimetres) :

	1.	2.	3.	4.	5.
From end of snout to vent . .	45	46	42	42	44
,, ,, ,, fore limb .	18	15	17	16	14
Length of head	11	10	11	10	9
Width of head	7	6·5	7	6·5	6
Depth of head	5·5	5	5·5	5·5	5
Fore limb	15	14	16	15	13
Hind limb	23	23	25	21	19
Foot	13	13	14	12	11
Tail	90	79	100	88	68

1. ♂, Oran. 2. ♀, Oran. 3. ♂, El Golea. 4. ♂, Chiodma. 5. ♀, Chiodma.

Habitat.—Sinaitic Peninsula, Lower Egypt (?), Tunisia, Algeria (Sahara and Province Oran), Morocco (between Mogador and Morocco and Plateau of Chiodma), Rio de Oro, south of Morocco. In only a few localities (Sinaitic Peninsula, Tunisia, Algerian Sahara) does this variety appear to occur alongside with the typical form.

Var. MARTINI.

Eremias martini, Bouleng. Ann. & Mag. N. H. (6) xix, 1897, p. 467.

Eremias guttulata, part., Anders. Faun. Egypt, Rept. p. 174, pl. xxiii, fig. 4 (1898).

Eremias guttulata martini, O. Neumann, Zool. Jahrb., Syst. xxii, 1905, p. 396.

Eremias guttulata, var. *martini*, Bouleng. Journ. Zool. Res. iii, 1918, p. 9.

The specimens from the borders of the Red Sea agree very nearly with the var. *olivieri* in the shape of the snout and in the semi-transparent palpebral disc composed of 4 to 6 pieces, but they are remarkable for the low number of scales across the body (32 to 38) and they are more handsomely striated than is the rule in the typical form and the var. *olivieri*. They deserve to be distinguished as a variety.

The hind limb reaches the shoulder or the collar in males, the axil or the shoulder in females.

In the type specimen, from Obok, the ventral plates are in 8 longitudinal series, all the other specimens examined having 10; the transverse series are 26 to 34 in number.

10 to 14 femoral pores on each side.

Grey or pale brown above, with two or three dark streaks on each

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side, the broadest, proceeding from the eye, separated from the lower by a white streak, and from the upper (if present) by a white or light streak, the dark streaks often bearing black and white spots or ocelli.

Measurements (in millimetres) :

	♂	♀
From end of snout to vent . . .	45	42
,, ,, ,, fore limb . .	17	15
Length of head	11	9
Width of head	8	6
Depth of head	5	4
Fore limb	16	13
Hind limb	26	22
Foot	14	12
Tail	108	77

Habitat.—Sinaitic Peninsula, Red Sea Province of the Sudan, Eritrea, Somaliland, Aden. The type, from Obok, was preserved in the late Dr. Henry Martin's private collection, which, I believe, was sold and dispersed after his death.

Var. LATASTII.

Eremias guttulata, var. *latastii*, Bouleng. Journ. Zool. Res. iii, 1918, p. 9.

M. Lataste collected a number of specimens at or near Aumale, in the province of Algiers, which, whilst agreeing with the var. *olivieri* in the shape of the snout and in the semitransparent palpebral disc, composed of 4 to 6 pieces, differ in the averagely smaller scales, 47 to 62 across the middle of the body, and in the high number of femoral pores, 14 to 17, exceptionally 12 or 13. They should be regarded as a distinct variety.

Head $1\frac{1}{2}$ to $1\frac{3}{5}$ times as long as broad. Hind limb reaching the collar or between the collar and the ear in males, the elbow or the axil in females; foot $1\frac{1}{5}$ to $1\frac{1}{4}$ times as long as the head. Tail $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as head and body.

Frontonasal broader than long; frontal $1\frac{3}{4}$ to 2 times as long as broad; occipital usually small, often separated from the interparietal by a small shield; first supraocular usually in contact with the frontal, often broken up into 2 to 4 pieces; sometimes 2 series of granules between the third supraocular and the superciliaries; anterior loreal $1\frac{1}{2}$ to 2 times as long as deep, sometimes as long as the second; 4 or 5 upper labials anterior to the subocular. Collar free or narrowly attached in the middle.

The coloration is identical with that of Socotra specimens (var.

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balfouri). Grey or greyish brown above, with two broad, light dorsolateral streaks bordered by darker or blackish streaks bearing numerous white, black-edged ocelli; these ocelli form, on each side, one dorsal and two lateral series; a whitish streak from below the eye, through the middle of the tympanum, to the groin.

Measurements (in millimetres):

	♂	♀
From end of snout to vent	47	48
,, ,, ,, fore limb	17	17
Length of head	12	11
Width of head	7·5	7
Depth of head	5	5
Fore limb	17	17
Hind limb	26	26
Foot	14	13
Tail	—	78

Var. SUSANA.

Eremias guttulata, var. *susana*, Boulenger, Journ. Zool. Res. iii, 1918, p. 9.

A male specimen from Susa, Tunisia, from the collection of Mr. L. Fraser, agrees with the var. *latastii* in the small scales, 52 across the middle of the body; but these are distinctly keeled from between the shoulders, and even rather strongly towards the tail.

Snout short, obtuse. Frontonasal broader than long; occipital as broad as the interparietal, barely half as long; anterior loreal 1½ times as long as deep. 26 gular scales in a straight line; collar composed of 9 plates, only the middle one attached. Ventral plates in 28 transverse series. 13 or 14 femoral pores. Hind limb reaching the shoulder.

Grey above, darker on the vertebral region, with numerous white, finely black-edged ocellar spots, the largest forming a dorsolateral series.

Measurements (in millimetres):

From end of snout to vent	40
,, ,, ,, fore limb	16
Length of head	10
Width of head	6·5
Depth of head	5
Fore limb	14
Hind limb	20
Foot	11

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Var. BALFOURI.

Eremias (*Mesalina*) *balfouri*, Blanf. Proc. Zool. Soc. 1881, p. 467, fig.

Eremias guttulata, part., Bouleng. Cat. Liz. iii, p. 87 (1887); Anders. Zool. Egypt, Rept. p. 174 (1898); Bouleng. in Forbes & Grant, Rep. Sokotra Exped. p. 84 (1903).

Eremias guttulata, var. *balfouri*, Bouleng. Journ. Zool. Res. iii, 1918, p. 10.

The specimens from Socotra have the narrow and pointed snout of the most extreme specimens of the typical form and the much divided and semitransparent palpebral disc of var. *olivieri*. The number of scales across the middle of the body (36 to 42) is intermediate between those of the typical form and of the var. *martini*, and the coloration is sometimes identical with that of the latter. The size is a little larger than that of the typical form or of any of the other varieties.*

Head $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as broad. Nasals not very strongly swollen. The hind limb reaches the collar or between the collar and the ear in males, the elbow, the axil, or the shoulder in females. Frontonasal as long as broad or a little broader than long; frontal shorter than its distance from the end of the snout and nearly always in contact with the first supraocular; interparietal longer than the frontoparietals; occipital small or very small.

Collar free, composed of 7 to 9 plates. Ventral plates in 26 to 28 transverse series in males, 28 to 31 in females. Preanal plate large in males, smaller in females, bordered by two semicircles of small plates. 11 to 15 femoral pores on each side.

Grey or brown above, usually with two white streaks on each side, a dorsolateral and a lateral, the latter from below the eye to the groin, passing through the tympanum, and black-edged beneath; the space between these two streaks dark brown with one or two series of white, black edged ocelli, or black with two or three series of white spots; a series of more or less confluent black spots, or of black and white ocelli, along each side of the back, on the inner side of the light streak; these markings, as well as the light streaks, sometimes obsolete.

* Blanford's statement, "General form rather stouter than that of *E. pardalis* (= *guttulata*), tail shorter, limbs stouter and shorter," is not confirmed by measurements of the type specimens, in all four of which the tail is imperfect, as correctly mentioned in the original description.

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Measurements (in millimetres):

	1.	2.	3.	4.	5.
From end of snout to vent .	51	48	58	42	54
„ „ „ fore limb	20	18	22	15	20
Length of head . . .	13	11	14	11	12
Width of head . . .	8	7	8·5	7	8
Depth of head . . .	6	5	7	6	6
Fore limb	16	16	17	15	17
Hind limb	29	26	33	26	30
Foot	15	14	18	14	16
Tail	—	—	102	87	85

1. ♂, type. 2. ♀, type. 3, 4. ♂, Halibu Plain. 5. ♀, Hadibu Plain.

Particulars of Specimens Examined.

Forma typica.	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Suez	43	41	10	27	11	22	14	20	4
„ Beni Hassan . . .	48	43	10	30	12	25	13	21	4
„ Luxor	47	44	8	31	11	22	13–12	22	4
♀ „	53	43	10	33	11	21	10–11	20	4
„ „	50	41	10	31	11	23	11–10	20	4
„ „	45	40	10	31	12	22	11–10	20	4
♂ Karnak	50	38	10	30	12	22	12	20	4
„ „	46	48	8	27	10	22	12–13	22	4
„ „	45	43	10	29	14	22	11	22	4
„ „	44	39	10	29	11	22	12	22	4
♀ „	50	46	10	32	12	23	10–11	22	4
„ „	46	45	10	31	13	23	12	21	4
„ „	43	42	10	30	12	22	12	21	4
„ „	42	39	10	32	10	22	12–13	21	3–4
♂ Medinet Habu . .	43	46	10	29	10	22	12–11	21	4
♀ „	51	49	10	31	11	25	13	21	4
♂ N. Etbai, Upp. Egypt . .	46	42	10	27	12	23	13	20	4
♀ „ „ . .	49	43	10	29	10	25	12	20	4
♂ Egypt? (type of *S. punctata*) .	45	46	10	31	10	26	12	20	4
♀ Assuan	53	42	10	30	14	24	11–12	21	4
„ „	52	43	10	31	11	22	11–10	21	4
„ Durrur, N. of Suakin .	48	46	10	33	10	25	12	19	4
„ „ „ . . .	45	40	10	31	10	19	10	20	4
„ „ „ . . .	43	42	10	30	10	22	11	20	4
♂ Erkovit Mt., nr. Suakin . .	46	36	10	28	10	20	13	22	4
„ Misurata, Tripoli . . .	38	41	10	27	9	20	12–13	19	4
„ S. Tunisia	35	43	10	30	10	20	12–11	20	4
♀ „	40	40	10	30	9	20	9–10	20	4
„ Mettamer, Tunisia . .	43	40	10	30	8	20	11	19	4
♂ Biskra	45	46	10	28	9	23	13–12	20	4–5

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	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Biskra	42	45	10	29	10	22	11	21	4
♀ „	49	45	10	31	10	21	11	20	4
„ „	44	44	10	31	10	24	10	19	4
„ „	41	41	10	31	10	19	10	19	4
♂ Biskra-Tuggurt	41	45	10	27	?	23	12	18	4
♀ Tuggurt	40	47	10	30	9	26	12	18	4
♂ Laghouat	40	46	10	30	10	22	11–10	18	5–4
♀ Tibremt	44	42	10	31	?	20	10	19	4
„ Mecheria, Oran	47	46	10	33	9	24	11–12	18	4
♂ Mt. Sinai	50	43	10	29	9	22	13–14	21	4
„ „	50	47	10	29	11	23	13	24	4
„ „	47	41	10	30	11	20	15	20	4
♀ „	49	40	10	31	10	21	12	20	4
„ „	49	40	10	30	10	19	12	20	4
„ „	47	39	10	32	9	21	13–12	21	4
♂ El Kubar, S. Arabia	42	43	10	28	9	19	11–12	20	4
„ „	40	43	10	29	10	21	14–13	21	4
„ Schaf Ravine „	45	42	10	30	9	23	13–12	20	5
♀ Jimil Valley „	45	39	10	30	9	23	13	22	4
„ Abian Hills „	41	41	10	31	8	30	13	21	5–4
„ Hadramut „	49	44	8	31	10	25	14	21	4
„ Neby Musa, Dead Sea	57	46	8	33	10	21	12	21	4
„ „ „	55	46	10	31	11	21	13–12	21	4
♂ Beersheba	49	51	10	29	12	19	14–13	20	4
♀ Jerusalem	48	43	10	33	12	23	12	21	4
„ „	44	46	10	34	11	23	13	21	4
„ Askhabad, Transcaspia	53	42	10	32	9	22	10	20	4
„ Copet Dagh „	43	40	10	31	9	21	11	20	4–5
♂ Puli Hatun „	45	42	10	29	9	22	12–11	20	4
„ Near Teheran, Persia	42	45	10	29	9	26	11–12	22	4
„ Ispahan „	43	45	10	28	10	23	13	21	4
♀ S.W. of Ispahan „	46	45	10	31	12	23	11	23	4
„ „ „	40	47	10	29	9	22	13–12	22	4
♂ Abadeh, Persia	45	46	10	29	8	22	10–12	22	4
„ „ „	41	42	10	29	11	26	13–12	21	4
♀ „ „	47	51	10	29	9	24	11–12	22	4
„ „ „	45	44	10	30	9	25	9–10	22	4
„ Karman „	45	42	10	31	8	22	11	22	5–4
♂ Rayin, N.E. of Karman	47	43	10	28	9	25	12	22	4
♀ „ „	35	49	10	31	9	27	11	22	4
♂ Nasirabad, Persia, **B.S.**	60	42	10	31	11	23	14	20	4
„ „ „ „	55	42	10	28	10	26	13	19	4
„ Gwadar, Baluchistan	48	47	10	27	9	22	12–11	22	4
„ „ „	34	48	10	27	10	24	11	20	4
♀ Ras Malan „	42	54	10	30	11	26	12	23	5
„ Quetta „	46	47	10	29	9	20	11–10	19	4
„ Quetta-Nushki, Afghanistan	43	41	10	33	8	25	12–13	22	4
„ Tirphul „	47	41	10	30	9	21	11	18	4

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	1.	2.	3.	4.	5.	6.	7.	8.	9.
♀ Helmand, Afghanistan	46	43	10	29	10	21	10–11	20	4
„ Hyderabad, Sind	50	46	10	33	9	26	12–13	20	4
„ „ „	46	40	10	31	9	22	12–11	18	4
♂ Sind	60	45	10	28	11	26	14	18	4
„ „	57	40	10	28	9	24	15–16	21	4
♀ „	50	43	10	32	10	26	15–14	20	4
„ „	47	43	10	31	10	23	13–14	19	4
Var. *olivieri*.									
♂ Sinaitic Peninsula	36	42	10	29	8	23	14–13	22	4
♀ Tor, Sinaitic Peninsula	47	43	10	31	11	24	11–12	22	5
„ Duirat, S. Tunisia	46	43	10	32	8	25	11	20	5
♂ Cabes, Tunisia	38	48	10	27	9	22	11	19	3
♀ „	47	42	10	31	11	21	11	18	4
„ „	41	40	10	33	8	22	11–10	20	4
„ Jerba Id., Tunisia	40	45	10	31	9	25	11–10	19	4
♂ S. of Gafsa „	38	46	10	28	8	23	13–14	20	4–5
♀ Mettamer. „	40	44	10	32	8	27	14–13	20	4
♂ Matmata „	40	42	10	28	9	21	11	19	4
♀ „ „	43	40	10	33	7	25	11–10	19	4
„ Plateau of Haskaïa	45	46	10	33	8	22	11	19	4
„ Zarzis, Tunisia	40	40	10	31	9	20	10	18	4
♂ Biskra	38	44	10	27	7	22	13–12	20	5–4
♀ „	43	41	10	27	8	22	11	17	4
„ „	42	47	10	31	9	22	11–12	18	4
„ Biskra-Laghouat	42	43	10	32	9	22	11	20	4
„ „	34	43	10	33	9	24	11	20	4
„ Laghouat	36	42	10	36	7	26	12–11	20	4
♂ Tuggurt	41	39	10	28	9	23	14	21	4
♀ „	46	35	10	30	7	22	10	20	5
„ Wed Dermel	38	40	10	31	10	24	13–12	21	4
♂ N'Gaous	43	41	10	27	8	22	11	17	4
„ El Golea-Fort Miribel	43	41	10	28	12	24	11	19	5
„ Oran	47	43	10	29	9	24	14–13	19	4
♀ „	46	41	10	33	7	23	11	20	4–5
♂ Tunisia, **P.M.**	44	47	10	28	10	24	11	20	4
„ „ „	43	50	10	27	9	28	15	19	4
„ „ „	42	44	10	27	8	24	12–11	18	4
„ „ „	40	48	10	30	10	24	14	18	4
♀ „ „	49	50	10	33	9	26	12–14	19	5
„ „ „	42	44	10	33	11	22	13	18	4
♂ La Senia, Oran	52	43	10	29	10	23	12	20	5–4
„ „ „	49	45	10	29	9	24	13–14	18	4
♀ „ „	50	48	10	33	8	23	12	20	4
♂ Kralfalla, Oran (type of *E. guichenodi*)	45	43	10	28	11	22	12	20	5
„ „ „ „	37	47	10	31	10	21	15	19	4–5

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	1.	2.	3.	4.	5.	6.	7.	8.	9.
♀ Mogador-Morocco (type of *E. simoni*)	50	39	10	35	10	22	12–11	18	4
„ „ „	48	42	10	33	12	23	13	17	4
♂ Shiodma, Morocco	42	45	10	31	9	22	11–12	16	4
♀ „ „	44	43	10	31	11	23	9	16	3–4
„ Rio de Oro	39	45	10	25	9	29	11	21	5
Var. *martini.*									
♀ Mt. Sinai	39	34	10	33	10	21	12–13	20	4
♂ Durrur, N. of Suakin	41	32	10	30	8	24	14	20	5
„ Akik, S. of Suakin	45	36	10	30	10	22	13	20	4
„ Obok, **P.M.**	39	37	10	29	9	20	12–13	19	4
♀ „ „	42	35	10	32	7	20	10	18	4
„ Sheikh Othman, Aden	42	38	10	34	9	21	12	20	4
Var. *latastii.*									
♂ Aumale	42	58	10	29	9	22	17	19	4
„ Wed Okris-Czars	47	55	10	30	10	27	14–15	20	4
♀ „	48	51	10	33	10	27	16	21	5
„ „	47	53	10	32	9	24	15–16	18	4
„ „	46	58	10	32	9	25	14	18	4
„ „	43	62	10	34	10	26	16–17	20	5
„ Tiril Alli	48	49	10	30	9	24	15	19	4
„ „	45	50	10	31	8	24	15	20	4
„ Rorfa des Beni Salam	47	52	10	33	8	22	12–13	18	4
„ „	47	52	10	33	7	26	15–16	17	4
„ Beni Mansour	45	47	10	33	8	26	15–14	19	4
„ „	45	56	10	32	7	24	16	20	4
Var. *susana.*									
♂ Susa, Tunisia	40	52	10	28	9	26	14–13	18	4
Var. *balfouri.*									
♂ Socotra (type)	51	36	10	26	9	21	14	23	4
♀ „ „	48	37	10	31	7	22	13–14	21	4
„ „ „	48	38	10	28	8	22	11	23	4–3
„ „ „	46	40	10	29	9	20	13–12	21	4
♂ Hadibu Plain	58	40	10	26	9	20	13–12	22	4
„ „	42	40	10	28	7	22	14	21	4
♀ „	54	41	10	30	7	22	12	21	4
♂ Dahamis	42	38	10	28	9	19	14	20	4
„ Homhil	55	40	10	27	8	20	13–12	23	4
♀ „	48	37	10	29	8	21	15–14	22	3–4
♂ Jena-Agahan	48	42	10	26	7	23	14–15	24	4
♀ „	48	38	10	30	8	20	13	22	4

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Synopsis of the Varieties.

I. Lower eyelid with a transparent disc formed of a pair of large scales, usually edged with black, sometimes with a series of much smaller scales below them; snout usually pointed and a little longer than broad.

36 to 54 (usually 39 to 47) smooth scales across middle of body; 9 to 15 (usually 10 to 14) femoral pores on each side . . . . . *Forma typica.*

II. Lower eyelid with an opaque or more or less transparent disc formed of 3 to 8 pieces, not black-edged.

A. Snout usually obtusely pointed and not or but slightly longer than broad.

35 to 50 (usually 40 to 47) smooth scales across middle of body; 9 to 15 femoral pores on each side . . . . . Var. *olivieri*, Aud.

32 to 38 smooth scales across middle of body; 10 to 14 femoral pores on each side . . . . . Var. *martini*, Blgr.

47 to 62 smooth scales across middle of body; 14 to 17 (rarely 12 or 13) femoral pores on each side . . . Var. *tatastii*, Blgr.

52 keeled scales across middle of body; 13 or 14 femoral pores on each side . . . . . Var. *susana*, Blgr.

B. Snout pointed, longer than broad.

36 to 42 smooth scales across middle of body; 11 to 15 femoral pores on each side . . . . . Var. *balfouri*, Blanf.

The vars. *olivieri* and *martini* must be regarded as the most primitive forms, from which all the others are directly and independently derived.

12. EREMIAS ADRAMITANA.

Eremias brevirostris, part., Anders. Herp. Arab. p. 43 (1896).

Eremias adramitana, Boulenger, Ann. & Mag. N. H. (8) xix, 1917, p. 279, and Journ. Zool. Res. iii, 1918, p. 5.

Head and body strongly depressed, limbs very slender. Head $1\frac{1}{2}$ times as long as broad, its length 4 to $4\frac{3}{4}$ times in length to vent, its depth equal to the distance between the centre or the posterior corner of the eye and the tympanum; snout pointed, with the nasal shields rather strongly swollen, as long as broad, as long as the postocular part of the head; canthus rostralis sharp, loreal region feebly concave; a shallow concavity on the upper surface of the snout, extending to the middle of the frontal shield. Pileus nearly twice as long as broad. Neck narrower than the head. Hind limb reaching between the collar and the ear in males, the shoulder or the collar in females; foot $1\frac{1}{3}$ to $1\frac{1}{2}$ times as long as the head; toes slender, feebly compressed. Tail $1\frac{3}{5}$ to $2\frac{1}{2}$ times as long as head and body.

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Upper head-shields flat, smooth. Nasals in contact with each other behind the rostral, the suture between them $\frac{1}{5}$ to $\frac{1}{3}$ the length of the frontonasal, which is broader than long; prefrontals as long as broad or a little broader, forming a suture in the middle; frontal as long as or a little longer than its distance from the end of the snout, $1\frac{2}{3}$ to 2 times as long as broad, narrow behind; parietals as long as broad or slightly longer; interparietal as large as or a little smaller than the frontoparietals, often followed by a small shield; occipital minute or absent, the parietals meeting in the middle. First supraocular small and in contact with the frontal, usually broken up into small shields or granules, fourth very small and sometimes broken up; 5 to 7 superciliaries, first longest; a series of granules between the supraoculars and the superciliaries. Three nasals, lower in contact with the rostral and the first upper labial; anterior loreal $1\frac{1}{2}$ to $2\frac{1}{2}$ times as long as deep, shorter than the second; 4, rarely 5, upper labials anterior to the subocular, which is keeled below the eye and borders the mouth. Temporal scales small, granular, lower larger; a narrow tympanic shield; no auricular denticulation. Lower eyelid with a semitransparent disc divided into 5 to 8 scales.

5 or 6 pairs of chin-shields, the first three in contact in the middle, the last narrow; 23 to 30 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate; no gular fold. Collar free or attached in the middle, with 8 to 12 plates.

Scales juxtaposed, granular, round and smooth, larger towards the ventral plates, 31 to 40 across the middle of the body. Ventral plates in 10 regular longitudinal and 29 to 33 transverse series, mostly as long as broad or a little broader than long, the outer longer than broad. Preanal plate moderately large or rather small, bordered by two semicircles of smaller plates.

Scales on upper surface of tibia subrhomboidal and juxtaposed, smooth or obtusely keeled, a little larger than dorsals; one series of large and one or two of small plates on the lower surface. 11 to 15 femoral pores on each side. Subdigital lamellæ tricarinate, 20 to 23 under the fourth toe.

Upper caudal scales oblique, truncate behind, strongly and diagonally keeled, lower smooth; 20 to 24 in the fourth or fifth whorl.

Fawn-coloured or pale grey above, with or without small brown spots, which may be irregular or disposed in two longitudinal series on the back, with or without small whitish spots; a dark brown lateral band, often bearing white spots, bordered below by a white or yellowish lateral streak passing through the tympanum; upper surface of limbs marbled with brown or with white spots. Lower parts white.

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Measurements (in millimetres):

	♂	♀
From end of snout to vent	41	40
„ „ „ fore limb	15	13
Length of head	10	9
Width of head	7	6
Depth of head	4	4
Fore limb	14	14
Hind limb	26	23
Foot	14	13
Tail	98	—

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ (Type)	44	36	10	30	8	27	12	23	4
„ „	41	33	10	29	10	26	14	20	4
„ „	37	33	10	31	8	25	11	21	4
„ „	36	37	10	31	9	27	12	22	5
„ „	35	32	10	31	9	23	13–12	22	4
„ **P.M.**	40	38	10	31	12	26	13	22	4
♀ (Type)	40	38	10	30	10	27	15–14	21	4
„ „	40	40	10	33	9	26	12	21	4
„ „	38	31	10	32	8	27	13	22	5–4
„ **P.M.**	39	36	10	33	11	30	14	23	4–5

Habitat.—Hadramut, South Arabia.

This species differs from *E. brevirostris*, with which it has been confounded by Anderson, in the more depressed head, longer in proportion to its width, the more slender limbs, and the ventral plates constantly in ten longitudinal series.

13. EREMIAS BREVIROSTRIS.

Eremias watsonanus, Stoliczka, Proc. As. Soc. Beng. 1872, p. 125 (*nec ante*, p. 86).

Mesalina brevirostris, Blanf. Ann. & Mag. N. H. (4) xiv, 1874, p. 32, and Zool. E. Pers. p. 379 (1876).

Eremias brevirostris, Boulenq. Cat. Liz. iii, p. 89 (1887), and Faun. Ind., Rept., p. 177 (1890); Peracca, Boll. Mus. Torin. ix, 1894, no. 167, p. 8; Boulenq. Journ. Zool. Res. iii, 1918, p. 5.

Eremias brevirostris, part., Anders. Herp. Arab. p. 43 (1896).

Eremias bernoullii, Schenkel, Verh. Nat. Ges. Basel, xiii, 1901, p. 187, fig.

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Body rather strongly depressed, head less strongly depressed than in *E. guttulata*. Head $1\frac{1}{5}$ to $1\frac{1}{3}$ times as long as broad, its length 4 to $4\frac{1}{5}$ times in length to vent in males, $4\frac{1}{2}$ to 5 times in females, its depth equal to the distance between the anterior corner of the eye and the tympanum; snout obtusely pointed, with the nasal plates much swollen, broader than long, as long as or slightly shorter than the postocular part of the head; canthus rostralis obtuse or sharp, loreal region feebly concave; a more or less distinct concavity on the upper surface of the snout, extending to the middle of the frontal shield. Pileus $1\frac{2}{3}$ times as long as broad. Neck as broad as the head. Hind limb reaching the shoulder or the collar in males, the elbow or the axil in females; foot from but slightly longer than the head to $1\frac{2}{5}$ times its length; toes moderately slender, not or but slightly compressed. Tail not quite twice as long as head and body.

Upper head-shields convex, smooth or slightly rugose. Nasals in contact with their inner angles behind the rostral, or forming a very short suture ($\frac{1}{6}$ to $\frac{1}{4}$ the length of the frontonasal); frontonasal broader than long; prefrontals as long as broad or a little longer, forming a suture in the middle; frontal as long as its distance from the rostral or from the end of the snout, $1\frac{2}{3}$ to $1\frac{4}{5}$ times as long as broad, narrow behind; parietals as long as broad or slightly longer; interparietal as large as or a little smaller than the frontoparietals, often followed by a small shield; occipital minute or absent, the parietals often meeting in the middle. 4 supraoculars, first usually rather large, sometimes broken up into 3 or 4 shields, in contact with the frontal,* fourth small and often broken up; 5 to 7 superciliaries, first largest; a series of granules, rarely incomplete, sometimes two, between the supraoculars and the superciliaries. Three nasals, lower in contact with the rostral and the first upper labial; anterior loreal $1\frac{1}{2}$ to 2 times as long as deep, sometimes divided into two, as long as or shorter than the second; 4 or 5 upper labials anterior to the subocular, which is keeled below the eye, and borders the mouth or is separated from it by one or two additional upper labials detached from its lower part.† Temporal scales small, granular, lower larger; a narrow tympanic shield; no auricular denticulation. Lower eyelid with a semitransparent disc formed of one large oval scale, which may be broken up into 5 to 8 pieces.

5 or 6 pairs of chin-shields, the first three in contact in the middle,

* Except in a female from Tel Jebarah.

† In 11 specimens out of 20 examined.

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the last narrow* ; 19 to 30 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate ; gular fold absent or feebly marked. Collar curved or angular, free, composed of 7 to 13 plates.

Scales juxtaposed, granular, round and smooth, larger towards the ventral plates, 35 to 50 across the middle of the body. Ventral plates in 12, rarely 10, regular longitudinal and 29 to 35 transverse series, as long as broad or broader than long† or the two median series broader than the others, the outer longer than broad. Preanal plate rather large and bordered by two semicircles of smaller plates in males, smaller and usually with three semicircles in females.

Scales on upper surface of tibia round or subrhomboidal and juxtaposed, smooth or obtusely keeled, as large as or a little larger than dorsals ; one series of large and two of small plates on the lower surface. 11 to 17 femoral pores on each side. Subdigital lamellæ tricarinate, 17 to 24 under the fourth toe.

Upper caudal scales oblique, truncate behind, feebly or moderately keeled, lower smooth ; 22 to 30 scales in the fourth or fifth whorl.

Grey or greyish brown above, usually with numerous large whitish, blackish-edged ocellar spots ; some specimens with small dark brown or rusty spots on the back and larger ones on the sides ; in the type from Kalabagh there are four very regular longitudinal series of large dark spots on the body in addition to numerous small white spots. Lower parts white.

Measurements (in millimetres) :

	1.	2.	3.	4.	5.
From end of snout to vent . .	44	55	52	55	46
,, ,, ,, fore limb .	17	20	20	18	17
Length of head	11	13	13	11	10
Width of head	8	9·5	10	8	8
Depth of head	5	6·5	6	5	5
Fore limb	17	19	19	17	16
Hind limb	27	30	30	28	27
Foot	14	14	15	15	14
Tail	85	102	95	—	87

1. ♂, Kalabagh (type). 2. ♂, Bushire. 3. ♂, Jerud. 4, 5. ♀, Jarrahi R.

* In the specimen from Felujah-Ramadieh there are 4 shields on the right and 5 on the left, 2–3 forming a symphysis.

† In the specimen from Jerud they are quite as broad as in *E. guttulata* and likewise in 10 longitudinal series.

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Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♀ Kalabagh, Punjab (type) . .	44	46	12	33	9	28	15–14	24	5–7
„ Dasht, Baluchistan . . .	41	42	10	30	10	28	16–15	22	4
„ Tumb Id., Persian Gulf (type) .	40	46	12	32	9	25	16	21	5
„ „ „ „ .	40	45	12	32	8	26	15	22	4
„ „ „ „ .	36	47	12	30	9	25	14	20	4
♂ Bushire, Persia	55	35	12	31	11	24	15–16	18	4
„ „ „	50	39	12	30	7	19	12–13	19	4
„ Jarrahi R., N.W. of Bushire .	54	50	12	32	11	26	14–15	21	4
♀ „ „ .	55	45	12	34	9	28	16	20	5
„ „ „ .	50	49	12	33	10	23	11–12	21	5–4
„ „ „ .	46	46	12	32	7	30	14–15	22	5–6
„ Zobeia, Mesopot., **B.S.** . .	32	42	12	33	9	22	13–12	21	5
♂ Tel Jebarah, between Basra and Nasriyeh	46	42	12	29	13	20	12–11	22	4
♀ „ „ .	43	43	12	32	7	21	11	21	4
♂ Faleya, Euphrates, **B.S.** . .	52	45	12	29	10	22	17–16	22	4
♀ „ „ . . .	52	49	12	33	10	27	14	22	4
„ Felujah-Ramadieh, Euphrates .	45	40	12	32	11	22	12	18	4
„ Ramadieh, Euphrates . .	42	39	12	33	11	21	14	21	4
„ „ „ . . .	40	44	12	35	10	22	14	21	4
♂ Jerud, Syria	52	36	10	30	9	23	14–15	17	4

Habitat.—The type specimens of this species are from Kalabagh in the Punjab and Tumb Island in the Persian Gulf. The lizard has since been found in Persia near Bushire, in Mesopotamia, and in Syria (Coslesyria Valley, Palmyra, Jerud), and I refer to the same species one of Blanford's *Mesalina pardalis* from Dasht, Baluchistan. The area of distribution, though a broken one in the present state of our knowledge, thus extends from Syria to the Punjab.

14. EREMIAS RUBROPUNCTATA.

Lacerta rubropunctata, Lichtenst. Verz. Doubl. Mus. Berl. p. 100 (1823).

Scapteira nebulosa, Gray, Ann. N. H. i, 1838, p. 281.

Mesalina lichtensteinii, Gray, t.c. p. 282.

Eremias rubropunctata, Dum. & Bibr. Erp. Gén. v, p. 297 (1839); A. Smith, Ill. Zool. S. Afr., Rept. pl. xlviii, fig. 9 (1845); Bouleng. Cat. Liz. iii, p. 89 (1887); Koenig, Reis. Alg. pp. 93, 412 (1896); Anders. Zool. Egypt, Rept. p. 182, pl. xxiii, figs. 5, 6 (1898); Steind. Denkschr. Ak. Wien, lxix, 1900, p. 330; Werner, Zool. Jahrb., Syst. xxvii, 1909, p. 608; Hartert, Nov. Zool. xx, 1913, p. 81; Bouleng. Journ. Zool. Res. iii, 1918, p. 5.

Mesalina rubropunctata, Gray, Cat. Liz. p. 43 (1845).

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Head and body rather strongly depressed. Head $1\frac{1}{4}$ to $1\frac{1}{3}$ times as long as broad, its length $3\frac{2}{3}$ to $4\frac{1}{4}$ times in length to vent in males, 4 to 5 times in females, its depth equal to the distance between the centre of the eye and the tympanum; snout pointed, with the nasal shields strongly swollen, as long as the postocular part of the head; canthus rostralis sharp, loreal region feebly concave; a more or less distinct concavity in the middle of the upper surface of the snout, extending to the middle of the frontal shield. Pileus $1\frac{2}{3}$ to $1\frac{3}{4}$ times as long as broad. Neck as broad as the head. Hind limb reaching the collar or between the collar and the ear, rarely the ear, in males, the elbow, the axil, the collar, or a little beyond, in females; foot $1\frac{1}{8}$ to $1\frac{1}{3}$ times the length of the head; toes moderately slender, not compressed. Tail $1\frac{2}{5}$ to $1\frac{4}{5}$ times the length of head and body.

Upper head-shields smooth, convex, sometimes slightly rugose in old specimens. Rostral usually* in contact with the frontonasal, which is as long as broad or a little broader; prefrontals as long as broad, or usually a little longer, forming a suture in the middle, rarely with a small azygos shield between them†; frontal as long as or a little shorter than its distance from the end of the snout, $1\frac{1}{2}$ to 2 times as long as broad, usually much broader in front than behind; parietals as long as broad or a little longer; interparietal as large as or smaller than the frontoparietals, rarely larger, in contact with an occipital‡ which is much shorter but sometimes quite as broad. First and fourth supraoculars small or broken up into granules; 6 to 8, rarely 5, superciliaries, first longest, separated from the two large supraoculars by one or two series of granules in front, 2 to 5 behind, rarely one throughout. Three nasals, lower in contact with the rostral and the first upper labial, posterior small and very rarely excluded from the nostril; anterior loreal 2 to 3 times as deep as long, exceptionally divided into two, as long as or a little shorter than the second; usually 4, sometimes 5, upper labials anterior to the subocular, which is keeled below the eye, and largely borders the mouth, its lower border much shorter than the upper; temporal scales small, granular, lower larger; a small tympanic shield often present; no auricular denticulation. Lower eyelid with a semitransparent disc formed of 5 to 8 scales, 2 or 3 of which are sometimes large.

* 8 exceptions (single specimens from Khargeh, Heluan, Foggaret es Zona, 2 from Wed Saret-El Golea, 3 from El Golea-Fort Miribel) out of 47 specimens.

† Single specimen from Khargeh and Natron Valley, 2 specimens from Giza.

‡ Except in the type of *S. lichtensteinii*, in which a small shield separates them, and in a specimen from Wed Saret-El Golea, in which the parietals meet on the median line.

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5 or 6 pairs of chin-shields, the first three, rarely two, in contact in the middle; 26 to 35 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate; gular fold more or less distinct. Collar angular, free or attached in the middle, composed of 7 to 11 small plates.

Scales juxtaposed, granular, flat, smooth, larger towards the ventrals, 53 to 67 (usually 58 to 63) across the middle of the body. Ventral plates in 12, rarely 10 or 14, straight longitudinal series, and 32 to 37 transverse series, mostly as long as broad or a little broader than long. Preanal plate usually rather large and much broader than long, sometimes small in females, bordered by 2 or 3 semicircles of small plates.

Scales on upper surface of tibia round and juxtaposed, as large as or a little larger than dorsals, smooth or obtusely keeled; one series of large and one or two of small plates on the lower surface. 13 to 22 femoral pores on each side, usually 14 to 20. Subdigital lamellæ bi-, tri-, or quadricarinate, 18 to 23 under the fourth toe, usually 20 to 22.

Upper caudal scales very oblique, truncate behind, feebly and diagonally keeled, lower smooth; 26 to 32 scales in the fourth or fifth whorl.

Grey, greyish or yellowish brown, or reddish above, with dark grey, blackish or reddish round spots, usually four in number, irregularly scattered or forming transverse series or even confluent into cross-bars, sometimes accompanied by small round bluish-white spots contiguous to the dark ones; rarely with irregular transverse series of ocellar spots; sides of tail often with dark vertical bars; upper surface of head sometimes blackish in males. Lower parts white.

The red colour predominates in specimens from Tripoli and Algeria.

This species shows no trace of striation, and thus stands in the same relation to *E. guttulata* as *L. ocellata* to *L. viridis*.

Measurements (in millimetres):

	1.	2.	3.	4.	5.	6.
From end of snout to vent .	53	55	56	62	63	50
„ „ „ fore limb	22	21	20	24	27	22
Length of head . . .	14	14	13	16	17	13
Width of head	10	10	9	11	12	9
Depth of head	7	6	5·5	7	8	6
Fore limb	21	21	19	22	23	20
Hind limb	34	32	28	35	37	31
Foot	17	17	14	18	19	17
Tail	—	97	90	—	110	87

1. ♂, Mt. Sinai. 2. ♂, Khargeh. 3. ♀, Giza. 4. ♀, Serir Ben-Afieu. 5. ♂, Wed Saret-El Golea. 6. ♀, El Golea-Fort Miribel.

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Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Mt. Sinai	53	63	12	34	9	34	15	21	5
♀ „	40	65	12	36	7	34	16	22	4–5
„ Sinaitic Peninsula	40	63	12	32	9	27	15–14	22	4
Hgr. — ? (type of *M. lichtensteinii*)	34	55	10	33	8	33	16–17	21	5–4
♂ Egypt (type of *S. nebulosa*)	46	62	12	34	9	29	17–18	21	4
♀ „ „	45	60	12	34	8	30	13–14	18	4
„ Moses Wells, Suez	45	60	12	34	8	27	14	21	4
„ „ „	44	65	12	36	8	30	16	22	5–4
„ „ „	42	59	12	35	8	27	15–16	21	4
♂ Khargeh	55	53	12	32	7	33	14–15	21	4
„ „	53	59	10	34	7	31	16–18	23	4
„ „	53	57	12	33	7	32	19–18	21	4
♀ „	67	60	12	37	9	34	16	22	5
„ „	49	56	12	35	8	29	15–14	20	4–5
♂ Natron Valley	48	58	12	34	9	32	17–16	20	4
„ „	48	61	12	32	8	30	16–17	20	5–4
♀ „	50	59	12	35	9	30	15	21	4
„ „	49	59	12	35	9	28	15–17	20	4
„ „	47	64	12	32	8	35	15	20	4–5
„ „	45	61	12	34	9	31	14	21	5
„ „	37	63	12	36	8	29	14–16	21	4–5
♂ Kafr Gamus	47	58	12	34	10	27	15	21	4
„ „	42	62	12	32	9	30	15–16	20	4
♀ „	46	59	12	37	7	28	13–14	20	4
♂ Giza	51	67	12	36	11	30	17–16	20	4
„ „	48	59	12	34	10	34	16–15	22	4–5
♀ „	56	61	12	36	10	33	15–16	19	4
„ „	52	62	12	37	8	32	14–16	21	4–5
„ Heluan	50	63	12	36	8	31	15	20	4
„ „	48	63	12	36	7	30	15	22	4–5
„ „	45	59	12	35	8	32	17–16	22	5–4
♂ Tel el Amarna	47	55	12	34	9	29	17–16	20	4
♀ „	52	60	12	35	7	33	17–15	21	5–4
„ „	48	61	12	36	7	27	16–15	21	4
„ Serir Ben-Afien, Tripoli	61	55	12	32	11	32	19	23	4
♂ Wed Saret-El Golea	63	60	12	34	9	34	21–20	20	4
„ „	60	65	12	35	10	31	20–22	21	4
„ „	56	60	12	32	8	29	20–19	21	4
„ „	55	60	12	33	9	31	18	18	4
„ El Golea-Ft. Miribel	57	53	12	35	9	26	19	21	4
„ „	52	59	12	34	9	33	17–18	20	4
♀ „	50	61	14	34	9	28	16–15	20	4
„ „	45	54	14	36	10	29	21	21	4
„ N.E. of El Golea	45	59	12	35	7	31	20–19	21	4
♂ Foggaret es Zona	58	58	12	33	7	34	16–17	20	4
„ „	36	56	12	34	11	31	20–19	21	4–5

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Habitat.—Sinaitic Peninsula, Egypt, Nubia, Tripoli, Algerian Sahara.

15. EREMIAS NAMAQUENSIS.

Eremias namaquensis, Dum. & Bibr. Erp. Gén. v, p. 307 (1839); Gray, Cat. Liz. p. 41 (1845); A. Smith, Ill. Zool. S. Afr., Rept. pl. xliv, fig. 2, and pl. xlviii, fig. 6 (1845); Bouleng. Cat. Liz. iii, p. 91 (1887); Werner, Jena. Denkschr. xvi, 1910, p. 330; Bouleng. Journ. Zool. Res. iii, 1918, p. 5.

Eremias breviceps, Sternf. Mitt. Zool. Mus. Berl. v, 1911, p. 404, fig.

Head and body rather strongly depressed. Head $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as broad, its length $3\frac{2}{3}$ to 4 times in length to vent in males, 4 to $4\frac{3}{4}$ times in females, its depth equal to the distance between the anterior corner or the centre of the eye and the tympanum; snout pointed, with the nasal shields feebly swollen, as long as or a little longer than the postocular part of the head, with sharp canthus and feebly concave loreal region; a more or less distinct concavity in the middle of the upper surface of the snout, extending to the middle or posterior third of the frontal shield. Pileus 2 to $2\frac{1}{4}$ times as long as broad. Neck as broad as the head or a little constricted. Hind limb reaching between the collar and the ear, the ear, or between the ear and the eye, in males, the collar or the ear in females; foot $1\frac{1}{3}$ to $1\frac{1}{2}$ times as long as the head; toes rather slender, feebly compressed. Tail 2 to $2\frac{4}{5}$ times as long as head and body.

Upper head-shields flat, smooth. Nasals in contact with each other behind the rostral, the suture between them $\frac{1}{6}$ to $\frac{1}{3}$ the length of the frontonasal, which is as long as broad or a little broader than long*; prefrontals as long as broad or a little longer than broad, forming a short median suture, or very frequently† separated by one or two, or even three or four small shields; frontal as long as or shorter than its distance from the end of the snout, $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as broad, narrow behind, $\frac{2}{3}$ to $\frac{4}{5}$ of its lateral border in contact with the large supraoculars; parietals as long as broad or a little longer than broad (exceptionally up to $1\frac{1}{3}$); interparietal as large as or larger than the frontoparietals; occipital usually as broad as or a little narrower than the interparietal and $\frac{1}{4}$ to $\frac{1}{2}$ its length, sometimes

* Longitudinally divided into two in a male from Great Namaqualand, in a male from L. Molopo, in a male from Ky Ky, and in a female from Port Elizabeth.

† In 44 out of 60 specimens examined.

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separated from it by one or two small shields* or by the parietals meeting in the middle,† rarely absent.‡ Two supraoculars, the first longer than its distance from the anterior loreal, the space in front of it filled by 3 to 8 scales; 6 or 7, rarely 5 or 8, superciliaries, first longest, separated from the supraoculars by a series of small granular scales or by one series in front and two behind. Three nasals, lower in contact with the rostral and the first upper labial, posterior small; anterior loreal 1½ to 2 times as long as deep, shorter than the second; 4 or 5, rarely 3 or 6, upper labials anterior to the subocular, which is keeled below the eye and largely borders the mouth, its lower border much shorter than the upper. Temporal scales granular, smooth; a narrow tympanic shield; no auricular denticulation. Lower eyelid opaque or semitransparent, with numerous enlarged scales in the middle, one of which may be much larger than the others.

4 pairs of chin-shields, the first three in contact in the middle.§ 24 to 38 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate; no gular fold Collar straight, free, composed of 7 to 11 plates.

Scales juxtaposed, granular, smooth, larger towards the ventrals, 47 to 65 across the middle of the body. Ventral plates in 12, rarely 10, regular longitudinal and 28 to 33 transverse series; the plates of the median and outer series as long as broad or longer than broad, the others as long as broad or a little broader than long. Preanal region usually with small irregular plates, exceptionally with one or two enlarged plates, or with three forming a triangle.

Scales on upper surface of fore limb large, smooth or obtusely keeled; lower surface of forearm with a series of transversely enlarged scales. Scales on upper surface of tibia rhombic, feebly imbricate, keeled, much larger than dorsals; one series of very large and one of small plates on the lower surface. 10 to 16 femoral pores on each side, usually 12 to 16. Subdigital lamellæ bicarinate, spinulose, 24 to 30 under the fourth toe.

Upper caudal scales oblique, truncate behind, strongly and diagonally keeled; basal subcaudals smooth or obtusely keeled; 24 to 32 scales in the fourth or fifth whorl.

The young is elegantly streaked with black and white on the body. There are 5 or 7 black streaks as wide as or wider than the inter-

* In 6 specimens.

† In 11 specimens.

‡ In the specimen from Ky Ky.

§ A male from Ky Ky is exceptional in having 5 pairs of chin-shields, the first 4 in contact in the middle.

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spaces; the median bifurcates between the shoulders and its white inner border is again divided by a short streak on the nape, which thus bears 7 or 9 black streaks. Beginning with the outer, the white streaks start from the upper lip, through the tympanum, from behind the eye, passing above the tympanum, from the superciliary edge, and from the occipital shield. The striation is not continued on the tail, which is reddish. Limbs dark brown with round white spots.

The dark streaks persist in the adult, on a pale grey, greyish brown, or reddish brown ground, but they often bear yellowish, black-edged ocellar spots, or they may be broken up into series of black spots; the vertebral streak may disappear on the nape or half-way down the body. Greater part of tail yellow or reddish orange. Lower parts white.

Measurements (in millimetres):

	1.	2.	3.	4.
From end of snout to vent . .	50	51	52	55
„ „ „ fore limb .	20	20	20	21
Length of head	13	12	13	12
Width of head	7·5	8	7	8
Depth of head	6	6	5·5	6
Fore limb	20	21	18	18
Hind limb	36	38	31	34
Foot	18	20	16	18
Tail	—	143	—	110

1. ♂, Great Namaqualand (type). 2. ♂, Steinkopf. 3. ♀, Deelfontein. 4. ♀, Gamis.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Gamis, Damaraland . . .	46	55	10	30	7	36	14–13	24	4
♀ „ „ **S.A.M.** .	55	61	12	32	10	34	14	27	5
♂ Nauches „ „ .	50	54	12	30	7	31	12–13	26	4
„ Damaraland	52	51	12	29	10	32	16	27	4–5
♀ „	49	47	12	31	8	24	15–13	24	5–4
♂ Great Namaqualand (type) .	50	53	12	32	9	33	14	28	3–4
„ „ „ .	49	60	12	28	8	33	15	25	4–3
♀ „ „ .	49	61	12	31	10	30	13–14	25	5–4
♂ „ . .	54	55	10	28	9	33	14–15	28	3–4
„ Wasserfall, Great Namaqualand	51	59	12	29	8	33	15	27	5–4
„ Steinkopf, Little Namaqualand .	51	60	12	29	9	32	14–13	27	4
„ Namaqualand	48	51	12	28	8	32	15–16	26	4
♀ Lower Norob, Gordonia, **McG. M.**	45	56	12	33	10	38	13–14	26	4
♂ Lower Molopo „ „ .	50	54	12	31	10	32	14	26	4
„ „ „ „ .	47	61	12	31	9	30	13	25	4
„ „ „ „ .	43	63	12	28	8	32	13	28	4

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				1.	2.	3.	4.	5.	6.	7.	8.	9.
♀	Lower Molopo, Gordonia,		**McG. M.**	45	55	12	32	10	29	12	27	4
,,	,,	,,	,, .	43	53	12	31	8	32	13–14	26	4
,,	,,	,,	,, .	42	55	12	32	9	32	14–13	27	4
♂	Ky Ky	,,	,, .	49	60	12	30	10	34	14 13	27	5
,,	,,	,,	. .	48	54	12	30	11	31	12–13	28	4
,,	,,	,,	**McG. M.**	48	58	12	31	10	36	15-14	27	5
,,	,,	,,	,, .	48	60	12	30	9	33	13	25	5
,,	,,	,,	,, .	47	55	12	29	10	30	13	27	4
,,	,,	,,	,, .	46	60	12	32	11	34	14–16	25	4
♀	,,	,,	,, .	48	58	12	33	10	36	15–14	25	4–5
,,	,,	,,	. .	46	61	12	33	9	35	13–12	26	4
,,	,,	,,	**McG. M.**	44	50	12	30	10	32	12–11	24	4
,,	,,	,,	,, .	43	53	12	31	11	32	10–11	25	4
♂	De Aar, **McG. M.**	.	. .	51	63	12	31	10	34	14	26	4
,,	Modder R. ,,	.	. .	51	58	12	30	9	31	13	25	4
,,	,, ,,	.	. .	48	63	12	30	9	33	13–14	30	4
♀	Port Elizabeth	.	.	47	64	10	32	9	32	13	27	4
♂	E. Districts of Cape Colony		.	47	65	10	30	11	35	16–15	28	4–5
♀	' ,,		.	53	58	12	32	9	35	14–13	25	4

Habitat.—Originally described from Great Namaqualand, this species is now known to have a wide distribution, extending northward to Damaraland and southward to Bechuanaland and over the greater part of Cape Colony.

16. EREMIAS UNDATA.

Lacerta undata, A. Smith, Mag. N. H. ii, 1838, p. 42.

Eremias undata, Gray, Cat. Liz. p. 42 (1845); Bouleng. Cat. Liz. iii, p. 92 (1887), and Ann. S. Afr. Mus. v, 1910, p. 477; Werner, Jena. Denkschr. xvi, 1910, p. 331; Bouleng. Journ. Zool. Res. iii, 1918, p. 5.

Eremias undata, part., A. Smith, Ill. Zool. S. Afr., Rept. (1845).

Eremias benguelensis, part., Bocage, Jorn. Sc. Lisb. i, 1867, p. 229.

Eremias namaquensis, part., Bocage, Herp. Angola, p. 31 (1895).

Eremias inornata, Roux, Zool. Jahrb., Syst. xx, 1907, p. 427, pl. xv, figs. 1–3; Hewitt, Ann. Transv. Mus. ii, 1910, p. 109, and iii, 1911, p. 48; Methuen & Hewitt, op. cit. iv, 1914, p. 138, figs.; Hewitt & Power, Tr. R. Soc. S. Afr. iii, 1918, p. 156.

Eremias undata, var. *inornata*, Sternf. Mitt. Zool. Mus. Berl. v, 1911, p. 404.

Head and body rather strongly depressed. Head $1\frac{3}{5}$ to $1\frac{2}{3}$ times as long as broad, its length $3\frac{3}{4}$ to 4 times in length to vent, its depth equal to the distance between the centre of the eye and the tympanum;

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snout pointed, with the nasal shields feebly swollen, a little longer than the postocular part of the head, with sharp canthus and feebly concave loreal region; a distinct concavity in the middle of the upper surface of the snout, extending to the middle of the frontal shield. Pileus $2\frac{1}{3}$ to $2\frac{1}{2}$ times as long as broad. Neck as broad as the head or a little constricted. Hind limb reaching the ear or the eye in males, between the collar and the ear or between the ear and the eye in females; foot $1\frac{1}{3}$ to $1\frac{2}{3}$ times as long as the head; toes rather slender, feebly compressed. Tail 2 to $2\frac{3}{4}$ times as long as head and body.

Upper head-shields flat, smooth. Nasals in contact with each other behind the rostral, the suture between them $\frac{1}{6}$ to $\frac{1}{2}$ the length of the frontonasal, which is as long as broad or a little broader than long; prefrontals as long as broad or longer than broad, usually forming a median suture*; frontal shorter than its distance from the end of the snout, $1\frac{1}{2}$ to $1\frac{3}{4}$ times as long as broad, $\frac{1}{2}$ to $\frac{2}{3}$ of its lateral border in contact with the large supraoculars; parietals $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as broad; interparietal larger than the frontoparietals, in contact with the large but shorter occipital. Two supraoculars, the first as long as or longer than its distance from the anterior loreal, the space in front of it filled by 6 to 15 scales or granules; 6 or 7 superciliaries, first longest, separated from the supraoculars by one or two, nearly three† series of granules. Three nasals, lower in contact with the rostral and the first upper labial, posterior small; anterior loreal $1\frac{1}{2}$ to 2 times as long as deep, shorter than the second; 5 or 6, rarely 4, upper labials anterior to the subocular, which is keeled below the eye and largely borders the mouth, its lower border much shorter than the upper. Temporal scales granular, smooth; a narrow tympanic shield; auricular denticulation absent, or reduced to a few projecting granules. Lower eyelid with a transparent disc formed of 2, rarely 3 or 4, larger black-edged scales, with 2 to 4 smaller ones below.

4 pairs of chin-shields, the first three in contact in the middle. 27 to 35 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate; no gular fold. Collar straight, free, composed of 9 to 15 plates.

Scales juxtaposed, granular, smooth, larger towards the ventrals, 58 to 75 across the middle of the body. Ventral plates in 10, rarely 12, regular longitudinal and 27 to 34 transverse series; the plates of the median series longer than broad, the others a little broader than long. Preanal region covered with small irregular plates.

* Separated by small shields in one specimen examined by Werner, in one from Kuboos, and in one from Grond Neus (McGregor Museum).

† Male from Grond Neus (McGregor Museum).

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Scales on upper surface of fore limb large, smooth or obtusely keeled; lower surface of forearm with a series of transversely enlarged scales. Scales on upper surface of tibia rhombic, feebly imbricate, keeled, much larger than dorsals; one series of very large and one of small plates on the lower surface. 10 to 15* femoral pores on each side. Subdigital lamellæ bicarinate, spinulose, 22 to 28 under the fourth toe.

Upper caudal scales oblique, truncate behind, strongly and diagonally keeled; basal subcaudals smooth or obtusely keeled; 20 to 30 scales in the fourth or fifth whorl.

In the typical form, as described by Smith, the markings of the young are the same as in *E. namaquensis*, and they persist in the adult with the only difference that the black is less intense and the white turns to pale brown or "reddish yellow inclined to orange." In the colour-variety named *inornata* by Roux, the upper parts are grey or pale buff above, uniform or with small white, dark-edged ocellar spots on the sides and hind limbs. Specimens intermediate between the two extremes occur (females from Groendoorn-Wasserfall and Nauchas): grey or reddish brown above, with 5 longitudinal series of small black spots on the back and ocellar spots on the sides.

Measurements (in millimetres):

	1.	2.	3.	4.
From end of snout to vent	61	50	52	46
„ „ „ fore limb	23	20	20	20
Length of head	16	13	13	12
Width of head	10	8	8	7
Depth of head	7	6	6	5
Fore limb	23	22	23	18
Hind limb	41	39	42	31
Foot	21	21	20	16
Tail	—	133	140	105

1. ♂, Type? 2. ♂, Maconjo. 3. ♀, Naroep. 4. ♀, Nauchas.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Type?	61	63	10	27	11	29	12–13	28	4–5
♀ Naroep, Little Namaqualand	52	61	10	29	11	28	12	24	5–6
„ „ „	52	65	10	31	12	27	13	25	5
„ „ „	49	62	10	28	12	28	12	24	6

* 9 to 12 in the types, according to Smith; 8 to 13 in the specimens examined by Werner.

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	1.	2.	3.	4.	5.	6.	7.	8.	9.
♀ Groendoorn-Wasserfall, Great Namaqualand	52	68	10	31	11	35	10	27	5
♂ Angra Pequena, Great Namaqualand	52	63	12	28	12	32	13	27	5
♀ „ „ .	42	73	12	30	10	35	13–12	25	5–6
„ „ „ .	40	65	10	31	9	30	12	25	5
♂ Nauchas, Damaraland . .	53	62	12	30	11	32	14	28	5
♀ „ „ **S.A.M.** .	46	61	12	32	12	30	11–12	25	5
„ Bull's Neck Pass, Damaraland, **S.A.M.**	46	61	10	30	11	29	12–13	26	5
„ Kuboos, **McG. M.** . . .	48	75	10	34	15	30	13–14	28	5–6
♂ Lower Molopo, Gordonia, **McG. M.**	49	59	12	30	14	30	12	26	5–6
„ Grond Nens, „ „	48	62	10	27	13	30	13–14	22	5
„ Maconjo, Benguella . . .	50	58	10	30	12	29	14	26	5
Hgr., Huxe, „	35	69	10	30	10	30	15–14	28	5

Habitat.—The types are from the "Northern and Western parts of Cape Colony." The species is now known from Little Namaqualand to Bechuanaland (Gordonia) and Angola (Benguella).

It is necessary to observe that my identification of *E. undata* rests on Sir Andrew Smith's description of 1838, in which 10 longitudinal rows of ventral plates are ascribed to the species, not 12 or 14 as stated by Duméril and Bibron, from specimens lent by Smith himself. These, as well as the one figured in the "Illustrations," are striated examples of *E. lineo-ocellata*, var. *pulchella*, which, owing to the markings, were confounded by Smith with his *E. undata*. The true *E. undata* is not among the specimens presented by Smith to the British Museum, but the lizard received from Lord Derby, previous to 1845, is probably one of the original types, given away by the former before the publication of his "Illustrations." It is a great pity that the types of so many of Smith's species were thus scattered about, with the result that some have been lost.

Were it not for the difference in the number of longitudinal series of ventral plates between this species and the preceding, a character which, although liable to exceptions, goes hand in hand with a difference in the lower eyelid, I should have hesitated to retain *E. undata* as a species distinct from *E. namaquensis*, in view of the variation in *E. guttulata*. But whereas in the North African species the extremes in the condition of the lower eyelid are completely connected, no transitional forms are known to occur in South Africa, although it is quite possible that such may eventually be discovered when larger series of specimens have been collected, in which case the question will have to be reconsidered, and *E. namaquensis*, as well as *E. benguelensis*, may have to be degraded to the rank of varieties of *E. undata*, which name

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carries priority. Anyhow, we must regard *E. benguelensis* as probably derived from *E. undata*, and the latter from *E. namaquensis*.

17. EREMIAS BENGUELENSIS.

Eremias benguelensis, part., Bocage, Jorn. Sc. Lisb. i, 1867, p. 229.
Eremias namaquensis, part., Bocage, Herp. Angola, p. 31 (1895).
Eremias benguelensis, Bouleng. Journ. Zool. Res. iii, 1918, p. 5.

Head and body rather strongly depressed. Head $1\frac{1}{2}$ to $1\frac{3}{5}$ times as long as broad, its length $3\frac{3}{5}$ to $4\frac{1}{3}$ times in length to vent, its depth equal to the distance between the centre of the eye and the tympanum; snout pointed, with the nasal shields feebly swollen, as long as the postocular part of the head, with sharp canthus and feebly concave loreal region; a distinct concavity in the middle of the upper surface of the snout, extending to the middle or posterior third of the frontal shield. Pileus $1\frac{3}{4}$ to 2 times as long as broad. Neck as broad as the head or a little constricted. Hind limb reaching the ear or between the ear and the eye in males, the shoulder or the collar in females; foot $1\frac{1}{4}$ to $1\frac{2}{3}$ times as long as the head; toes rather slender, feebly compressed. Tail $1\frac{1}{5}$ to $2\frac{1}{4}$ times as long as head and body.

Upper head-shields flat, smooth. Nasals in contact with each other behind the rostral, the suture between them $\frac{1}{5}$ to $\frac{1}{3}$ the length of the frontonasal, which is a little broader than long; prefrontals as long as broad or longer than broad, forming a short median suture or separated* by a small azygos shield; frontal as long as or shorter than its distance from the end of the snout, $1\frac{1}{2}$ to 2 times as long as broad, $\frac{1}{2}$ to $\frac{3}{4}$ of its lateral border in contact with the large supraoculars; parietals $1\frac{1}{4}$ to $1\frac{1}{2}$ times as long as broad; interparietal much larger than the frontoparietals, usually in contact with the occipital,† which is often as broad and always much shorter. Two supraoculars, the first as long as or a little longer than its distance from the anterior loreal, the space in front of it filled by 7 to 15 scales or granules; 6 or 7, rarely 5, superciliaries, first longest, separated from the supraoculars by a series of granules. Three nasals, lower in contact with the rostral and the first upper labial, posterior small; anterior loreal as long as deep or a little longer than deep, shorter than the second; 4, rarely 5, upper labials anterior to the subocular, which is keeled below the eye and largely borders the mouth, its lower border much shorter than the upper. Temporal scales granular, smooth; a narrow

* In 4 specimens out of 15.

† In 2 specimens a small shield separates them.

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tympanic shield; no auricular denticulation. Lower eyelid with a large oval transparent scale, edged with black.

4 pairs of chin-shields, the first three in contact in the middle. 25 to 30 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate; no gular fold. Collar straight, free, composed of 7 to 10 plates.

Scales juxtaposed, granular, smooth, more rhombic and feebly keeled on the posterior part of the back, larger towards the ventrals, 52 to 63 across the middle of the body. Ventral plates in 10 regular longitudinal and 25 to 30 transverse series, the plates of the median and outer series as long as broad or longer than broad, the others a little broader than long. Preanal region covered with small irregular plates or with one large plate bordered by two semicircles of smaller ones.

Scales on upper surface of fore limb large, smooth; lower surface of forearm with a series of transversely enlarged scales. Scales on upper surface of tibia rhombic, feebly imbricate, keeled, much larger than dorsals; one series of very large and one of small plates on the lower surface. 11 to 14 femoral pores on each side. Subdigital lamellæ bicarinate, spinulose, 23 to 26 under the fourth toe.

Upper caudal scales oblique, truncate behind, strongly and diagonally keeled; basal subcaudals more or less distinctly keeled; 20 to 26 scales in the fourth or fifth whorl.

Grey or pale reddish brown above, with dark brown or black streaks disposed as in *E. namaquensis*, those on the sides separated by whitish; the dark streaks sometimes broken up into small spots, and the vertebral often indistinct or absent; tail yellow or orange. Lower parts white.

Measurements (in millimetres):

	♂	♀
From end of snout to vent	49	52
,, ,, ,, fore limb	19	18
Length of head	12	12
Width of head	7	7
Depth of head	5	5
Fore limb	20	17
Hind limb	34	29
Foot	17	15
Tail	98	95

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Huxe, Benguella	40	56	10	29	10	28	13–14	26	4
,, ,, ,,	36	61	10	27	9	30	14	25	5

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		1.	2.	3.	4.	5.	6.	7.	8.	9.
♂	Huxe, Benguella	35	58	10	27	10	29	13	24	4
„	„ „	35	67	10	27	9	26	12	24	4
♀	„ „	40	61	10	30	9	27	12	25	4
♂	Ponang Kuma, Mossamedes . .	49	52	10	27	7	25	13	24	4
„	„ „ . .	42	59	10	27	9	26	12	25	4
„	„ „ . .	38	58	10	29	8	25	11	26	4
♀	„ „ . .	52	58	10	29	9	27	12	23	4
„	„ „ . .	36	59	10	31	8	30	13–12	24	4

Habitat.—Angola (Benguella and Mossamedes).

18. EREMIAS LINEO-OCELLATA.

Eremias lineo-ocellata, Dum. & Bibr. Erp. Gén. v, p. 314 (1839); Gray, Cat. Liz. p. 41 (1845); A. Smith, Ill. Zool. S. Afr., Rept. pl. xlviii, fig. 2, and pl. xlviii, fig. 10 (1845); Bouleng. Cat. Liz. iii, p. 94 (1887); Roux, Zool. Jahrb., Syst. xxv, 1907, p. 426; Werner, Jena. Denkschr. xvi, 1910, p. 334; Hewitt, Ann. Transv. Mus. ii, 1910, p. 109; Bouleng. Ann. S. Afr. Mus. v, 1910, p. 477; Hewitt, Ann. Transv. Mus. iii, 1911, p. 48; Sternf. Mitt. Zool. Mus. Berl. v, 1911, p. 405; Hewitt & Power, Tr. R. Soc. S. Afr. iii, 1918, p. 156; Bouleng. Journ. Zool. Res. iii, 1918, p. 6.

Eremias undata (non A. Smith), Dum. & Bibr. t.c. p. 316; A. Smith, op. cit. pl. xliv, fig. 1, and pl. xlviii, fig. 11; Methuen & Hewitt, Ann. Transv. Mus. iv, 1914, p. 139, fig.

Eremias pulchella, Gray, op. cit. p. 42; Bouleng. Cat. Liz. iii, p. 93; Boettg. Ber. Senck. Ges. 1886–87, p. 146; Roux, l.c.; Werner, t.c. p. 331; Sternf. l.c.; Hewitt & Power, l.c.

Eremias annulifera, A. Smith, op. cit. pl. xlvii, fig. 1, and pl. lviii, fig. 14.

Eremias pulchra, A. Smith, l.c. figs. 2, 12.

Eremias formosa, A. Smith, l.c. figs. 3, 15.

Eremias lineo-ocellata, var. *pulchella*, Methuen & Hewitt, l.c.

A very variable species, comparable to *Acanthodactylus vulgaris* in the range of variation of the dorsal scales.

The following description is based exclusively on specimens from Sir Andrew Smith's Collection, types of the *E. lineo-ocellata* of Duméril and Bibron.

Head and body rather strongly depressed. Head $1\frac{2}{3}$ to $1\frac{3}{5}$ times as long as broad, its length $3\frac{1}{2}$ to 4 times in length to vent in males, 4 to $4\frac{1}{2}$ times in females, its depth equal to the distance between the centre or the anterior corner of the eye and the tympanum; snout

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rather obtusely pointed, with the nasals more or less swollen, as long as the postocular part of the head; a distinct concavity in the middle of the upper surface of the snout, extending to the middle or the posterior extremity of the frontal shield. Pileus $1\frac{3}{4}$ to 2 times as long as broad. Neck as broad as the head or a little narrower. Hind limb reaching the ear or between the collar and the ear in males, the shoulder, the collar, or between the collar and the ear in females; foot $1\frac{1}{6}$ to $1\frac{1}{3}$ times as long as the head; toes rather slender, feebly compressed. Tail $1\frac{3}{4}$ to $2\frac{1}{4}$ times as long as head and body.

Upper head-shields flat or feebly convex, smooth or feebly rugose and pitted. Nasals in contact with each other behind the rostral, the suture between them $\frac{1}{6}$ to $\frac{1}{3}$ the length of the frontonasal, which is broader than long; prefrontals longer than broad, forming a short median suture or* separated by an azygos shield; frontal as long as or shorter than its distance from the end of the snout, $1\frac{1}{2}$ to $1\frac{3}{4}$ times as long as broad, not more than $\frac{1}{2}$ of its lateral border in contact with the large supraoculars, sometimes† separated from them by a series of small scales; parietals as long as broad or a little longer than broad; interparietal as large as or larger than the frontoparietals; occipital small, $\frac{1}{6}$ to $\frac{1}{3}$ the length of the interparietal, sometimes minute and separated from the latter by the parietals meeting in the middle. Two supraoculars, together not longer than $\frac{1}{2}$ the supraocular region, the first usually shorter than the second, and as long as or shorter than its distance from the anterior loreal, the space in front of it filled by 2 to 6 transverse series of small shields or granules; 5 to 9 superciliaries, separated from the supraoculars by 2 to 4 series of granules. Three nasals, lower in contact with the rostral and the first upper labial, posterior small and sometimes excluded from the nostril; anterior loreal as long as deep, shorter than the second; 4 or 5, rarely 6, upper labials anterior to the subocular, which is keeled below the eye and largely borders the mouth, its lower border much shorter than the upper. Temporal scales granular, smooth or obtusely keeled; no tympanic shield; 3 or 4 obtuse or pointed lobules project in front of the ear. Lower eyelid with a transparent disc formed of two large black-edged scales, sometimes with 2 or 3 smaller ones below.

4 pairs of chin-shields, the first two (rarely three) in contact in the middle. 33 to 43 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate; no gular fold. Collar straight, free, composed of 10 to 15 plates.

Scales juxtaposed, granular, smooth or obtusely keeled on the neck,

* In 17 specimens out of 24.

† In 9 specimens.

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gradually larger, rhombic, subimbricate, and rather strongly keeled on the body, graduating into the caudals; larger and smooth on the sides and graduating into the ventrals; 53 to 72 scales across the middle of the body. Ventral plates in 12, rarely 14, often rather irregular longitudinal and 32 to 38 more or less angular transverse series, the plates mostly as long as broad or a little broader than long. Preanal region covered with small irregular plates.

Scales on upper surface of fore limb moderately large, obtusely keeled. Scales on upper surface of tibia rhombic, feebly imbricate, keeled, as large as or a little larger than the posterior dorsals; one series of very large and one of small plates on the lower surface. 12 to 17 femoral pores on each side. Subdigital lamellæ bi- or tricarinate, spinulose, 24 to 28 under the fourth toe.

Upper caudal scales oblique, truncate behind, strongly and diagonally keeled; basal subcaudals smooth or obtusely keeled; 24 to 32 scales in the fourth or fifth whorl.

Greyish or reddish orange above, with two whitish streaks on each side, with whitish black-edged ocellar spots between them, or with two pairs of dark brown streaks, the inner from the superciliary edge, the outer from behind the eye, sometimes broken up into series of elongate spots; these streaks bordered on the inner or the outer side, or on both, by whitish ocellar spots; ocellar spots sometimes also present on the back, between the bands, and on the limbs. Lower parts white.

Measurements (in millimetres):

	♂	♀
From end of snout to vent . . .	58	56
„ „ „ fore limb . .	21	20
Length of head	15	14
Width of head	10	10
Depth of head	8	7
Fore limb	23	21
Hind limb	37	35
Foot	18	18
Tail	105	105

Sir Andrew Smith has omitted to state from what part of South Africa his specimens were obtained. Hewitt regarded *E. lineo-ocellata* and *E. pulchella* as geographical varieties, the latter belonging to "German South-West Africa and Western Cape Province, whereas *lineo-ocellata* is the Transvaal, Free State, and Kalahari form." The series in the British Museum and in the South African Museum are, however, not in accordance with this view.

In addition to Smith's specimens I have examined others from

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various localities, which are enumerated in the following table, agreeing with the types in the carination of the dorsal scales, although in some of them these scales are not so large, merge less gradually into the caudals, and are much smaller than those on the upper surface of the tibia. Specimens from the Karoo and Port Elizabeth have less strongly keeled scales and may be regarded as forming a connecting link with the var. *pulchella*.

The coloration varies greatly. A female stated to be from Natal (Coll. Sanderson, S. African Museum), and others from Kimberley, agree with Duméril and Bibron's types in having two pairs of whitish streaks and numerous ocellar spots forming longitudinal series; others lack the streaks and have nothing but ocelli, as in the type of *E. pulchella*, some resembling *E. guttulata* in their markings; a lateral series of large blue ocelli is often present. Ground-colour grey, greyish brown, pale buff, coppery brown, or (Naroep, Kimberley, Ababis) brick-red.

The very young are handsomely striated: three black bands along each side of the body, separated by narrower white streaks; upper surface of head and vertebral region grey, with small black spots; hind limbs reddish brown, with round white spots; tail red.

The anterior loreal is sometimes a little longer than deep; in one specimen* the shield is small and triangular, the second loreal touching the posterior nasal above it. An azygos shield is usually present between the prefrontals,† and in one female‡ the frontonasal is in contact with the frontal, which is a little longer than its distance from the end of the snout. The frontal is sometimes§ separated from the supraoculars by a series of small scales. In one specimen‖ the lower part of the subocular, on one side, is severed to form an additional upper labial.

The number of plates in the collar varies from 9 to 16.

11 to 16 femoral pores on each side. 21 to 27 lamellæ under the fourth toe.

The tail may be only 1½ times the length of head and body.

Measurements (in millimetres):

	1.	2.	3.	4.	5.	6.
From end of snout to vent .	65	57	54	58	50	48
„ „ „ fore limb	27	22	22	20	19	17
Length of head . . .	17	14	14	13	12	11

* From Pretoria.

† In 23 specimens out of 36; in one specimen 3 small shields form a triangle.

‡ From Pretoria.

§ In 12 specimens.

‖ From Vredefort Road.

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	1.	2.	3.	4.	5.	6.
Width of head	11	10	10	9	8	8
Depth of head	8·5	7	8	7	6	6
Fore limb	25	23	23	21	18	18
Hind limb	47	38	41	38	30	27
Foot.	22	19	19	19	15	14
Tail	145	110	—	98	90	72

1. ♂, Ababis, Damaraland. 2. ♂, Barberton. 3. ♂, Naroep. 4. ♀, Gordonia. 5. ♀, Ababis. 6. ♀, Pretoria.

Since the above description was drawn up, Miss Wilman, Curator of the McGregor Museum, Kimberley, has kindly placed at my disposal for study the large series of specimens collected by her in Gordonia, Bechuanaland, and another large series from Warrendale, near East London, collected by Mr. Addison. These additional specimens throw fresh light on the variation of the species, and doubts on the validity of my recently described *E. aspera*.

I will deal first with the Warrendale series (58 specimens).

The upper head-shields are sometimes smooth, more often somewhat rugose, and in a few specimens almost as much as in the types of *E. aspera**; the prefrontals are separated from each other in 20 specimens, and a complete series of granules borders the inner side of the supraoculars in 14. The chin-shields are asymmetrical in 4 specimens: 4 on one side and 5 on the other; one has 5 shields on each side, the 2 first pairs in contact in the middle; among the specimens in which the shields are normal in number, 3 have only the first pair in contact with each other, and 3 have the three anterior pairs meeting on the median line. The anterior border of the ear is always more or less denticulated. The scales, which vary in number between 58 and 75 across the middle of the body, are always strongly keeled.

These specimens are nearly all highly coloured, reddish brown or coppery red, with the ocellar markings, as described above, well marked; some have one or two pairs of interrupted dark brown or black streaks on the body; a lateral series of 4 to 6 blue ocelli is present in a few. One specimen, a female, is uniform reddish brown above, with a white lateral streak passing through the ear. The lower surface of the tail is sometimes of a bright pink colour.

The Gordonia series consists of 60 specimens: 13 from the Lower Norob, 8 from the Lower Molopo, and 39 from Ky Ky, all pale greyish or sand-colour, more reddish on the limbs and tail, with or without

* I note the same thing in single specimens from Emmaus, Enslin, and Steynsburg in the Kimberley Museum.

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small dark spots, usually with two more or less distinct light streaks on each side, the upper of which may be dark-edged on the inner side; ocelli usually absent, sometimes present but ill-defined; a few (males and females) with four or five blue ocelli in a series on each side.*

The upper head-shields are smooth or feebly rugose; only in 8 specimens are the prefrontals separated from each other and in 7 is a complete series of granules present on the inner side of the supraoculars; 12 have the three anterior pairs of chin-shields in contact with each other, and 2 have only three chin-shields on each side. The scales are less strongly keeled than in the specimens from Warrendale, and in two of the specimens from Lower Norob they are very feebly keeled; the number across the middle of the body varies between 53 and 69. The auricular denticulation is, in a few specimens, quite indistinct or absent.

Var. PULCHELLA, Gray.

I have formerly united under the name of *E. pulchella*, Gray, a number of colour-varieties, some of which agree very closely with those known in *E. lineo-ocellata* but which differ in the scales being smooth, or more or less distinctly keeled on the posterior half of the body only, where they are usually a little smaller, merging less gradually into the caudals. I now find that the two supposed species are so completely connected in the degree of carination of the scales as well as in their size as to render the distinction almost arbitrary; I therefore have no hesitation in uniting them, and I even doubt whether the separation of *E. pulchella* as a variety reflects the state of things in Nature. As mentioned above, this variety is not a Western geographical form, as believed by Hewitt, specimens with the scales keeled from between the shoulders occurring in Damaraland with others in which only the posterior dorsal scales are feebly keeled.

The proportions and the lepidosis, apart from greater smoothness of the dorsal scales, the posterior of which are always much smaller than those on the tibia, are the same as in the typical form. I need only note that 6 anterior upper labials is as frequent as 4, 5 being the usual number, that an azygos shield between the prefrontals is less frequent,† and that the frontal is more rarely separated from the supraoculars by a series of granules‡; the frontonasal is exceptionally

* Similar specimens, from Abeam Upington (Lennox Coll.), are also in the Kimberley Museum.

† In 9 specimens out of 22.

‡ In 5 specimens.

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as long as broad*; a small shield is sometimes† present between the interparietal and the occipital.‡ 57 to 73 scales across the middle of the body; ventral plates in 12 longitudinal series, rarely 10§ or 14, and 31 to 36 transverse series. 31 to 39 gular scales in a straight line; 11 to 16 plates in the collar. 10 to 17 femoral pores on each side‖; 23 to 30 lamellæ under the fourth toe.

In the type of *E. pulchella* the upper parts are grey, the head and body dotted all over with black; 4 longitudinal series of large white, black-edged ocellar spots on the back; a rather indistinct light lateral streak, edged with dark grey, from below the eye, through the tympanum, to the base of the hind limb. Lower parts white.

The types of the three colour-varieties described as species by Smith are now more or less bleached; I will therefore reproduce, in a somewhat abridged form, the descriptions given by that author.

E. annulifera. Bluish grey or greenish grey above, the back variegated with four rows of small, somewhat circular, liver-brown spots, some of those of the lowermost row on each side smaller, with white centres, and some of those of the upper rows with a clear white spot immediately under their lower edge. Lower parts pale greenish grey.—Interior of S. Africa, towards the tropic.

E. pulchra. Light broccoli-brown above, variegated with flesh-red, the back and sides with small brownish-red spots and broken brownish-red bands; the spots are arranged in two rows along the centre of the back, many of them being partly brownish and partly pure white; the bands are two on each side, from behind the ear-opening to the base of the hind limb. Lower parts dead-white.—Interior of S. Africa.

E. formosa. Intermediate between yellowish brown and buff or orange, which colour is bordered on each side by two longitudinal bands extending from the head to the base of the tail, the outer narrow, of a light straw-yellow and in some specimens interrupted, the inner considerably wider, continuous, and of a deep liver-brown; sides dull yellowish brown, freckled with liver-brown, and variegated with a few dark liver-brown rings surrounding light straw-yellow spots. Lower parts dull bluish white.—West Coast of S. Africa, more especially in the neighbourhood of the Orange River.

* In 3 specimens.—In the larger type of *E. pulchella* a small shield separates the nasals.

† In 4 specimens.

‡ In a female from Graaf Reinet (Kimberley Mus.) the parietal is divided into two by a transverse suture.

§ According to Werner.

‖ 9 to 17 according to Werner.

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To Smith's description of *E. formosa* I may add that a blackish median line is present from the occiput to between the shoulders. I have seen very similar specimens from Steinkopf, Little Namaqualand, and the examples figured by Smith as *E. lineo-ocellata* and *E. undata* also approach this type in their colour and markings. The young has 5 black streaks on the nape and 4 on the body; tail red. A half-grown specimen from Aus, Great Namaqualand, has 5 black streaks along the whole dorsal region, and another from Ababis, Damaraland, has 3.

Examples from Angra Pequena and Quilis, Great Namaqualand, and Gibeon, Damaraland, are grey or pale reddish brown, with 3 dorsal series of blackish dots and a very regular lateral series of 4 to 8 blue, black-edged ocelli.

Striated individuals appear to be found only to the west, but in other parts of South Africa the black and white ocelli may be arranged in regular longitudinal series. Sometimes the ocelli have a tendency to arrange themselves in transverse series.

Werner has given an account of numerous specimens from what used to be German South-West Africa, which shows that, although those with dark longitudinal streaks predominate, hardly any two are alike in colour and markings, thus precluding an arrangement into colour varieties.

Measurements (in millimetres):

	1.	2.	3.	4.
From end of snout to vent . .	54	56	62	56
,, ,, ,, fore limb .	20	22	21	21
Length of head	13	14	14	13
Width of head	9	10	9	9
Depth of head	6	7	6	6
Fore limb	21	21	21	21
Hind limb	37	36	35	36
Foot	17	17	18	17
Tail	—	95	—	107

1. ♂, type. 2. ♂, Deelfontein. 3. ♀, Deelfontein. 4. ♀, Steinkopf.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
Forma typica.									
♂ S. Africa (A. Smith), type . .	58	59	12	32	15	33	14-15	26	4
,, ,, ,, ,, . .	50	62	12	37	10	43	13-14	24	6-5
,, ,, ,, ,, . .	49	62	14	37	12	35	17-16	25	4-5

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	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ S. Africa (A. Smith), type	46	60	12	34	11	35	14	26	5
,, ,, ,, ,,	43	53	14	32	13	43	14	26	5
♀ ,, ,, ,,	59	55	12	34	12	37	14–13	24	4
,, ,, ,, ,,	56	56	14	34	13	35	14	25	5–4
,, ,, ,, ,,	56	72	14	35	13	42	13–14	28	5
,, ,, ,, ,,	55	61	12	36	12	37	12–13	26	5
,, ,, ,, ,,	55	69	12	35	12	35	14–13	25	4
,, ,, ,, ,,	53	59	12	38	13	34	15–14	24	4
,, ,, ,, ,,	53	68	12	37	14	35	14–13	26	5–4
,, ,, ,, ,,	53	57	12	33	13	36	13	26	5
,, ,, ,, ,,	46	70	12	36	14	34	13–12	24	5
,, ,, ,, ,,	41	63	12	33	14	43	15–16	24	5
♂ Ababis, Damaraland, **S.A.M.**	65	60	12	34	9	36	15	26	4
,, ,, ,, ,,	56	55	12	34	16	35	12–11	26	5
♀ ,, ,, . .	50	60	12	33	12	32	12–13	25	5–6
♂ Windhoek, ,, **S.A.M.**	52	56	12	32	12	34	12–13	27	6
,, Nauchas ,, ,,	49	58	12	31	13	31	13	24	5–4
,, Haras ,, ,,	49	65	12	31	12	32	12	24	4–5
,, Great Namaqualand, **P.M.**	48	60	12	31	?	40	13–12	24	5
♀ ,, ,,	52	54	12	33	11	29	11–10	22	5
♂ Naroep, Little Namaqualand	54	61	12	32	10	41	14–15	27	4
♀ Colesburg, Cape Province	40	65	12	32	12	35	14–13	26	5
♂ Karoo	59	68	12	31	13	35	13	24	5
,, Mossel Bay, **McG. M.**	52	54	12	30	13	29	12	24	4–5
♀ ,, ,,	52	53	12	33	11	31	12–13	25	5
♂ Port Elizabeth	50	63	12	33	10	33	15	26	5 4
,, ,,	50	66	12	32	13	35	13–14	25	4
,, ,,	46	55	12	31	12	31	13	25	5
♀ ,,	51	71	12	33	11	33	13–14	25	4–5
♂ Kimberley	50	65	14	36	12	38	15	24	6–5
♀ ,,	48	65	14	36	14	32	13 12	25	5
,, Dry Horts, near Kimberley	52	60	12	33	14	39	15	25	5
♂ Enslin ,,	51	62	12	33	12	43	15	27	5
♀ ,, ,,	50	67	12	33	12	32	12	24	4
,, ,, ,,	48	60	14	36	13	34	11–12	25	5–4
,, Riverton ,,	52	65	12	37	13	42	13–12	25	5–4
♂ Gordonia	55	56	12	36	12	38	13–14	26	5
♀ ,,	61	56	12	35	12	40	15–14	25	5–6
,, ,,	58	64	12	35	12	40	13	26	5–4
♂ Vredefort Road, O. R. Col.	45	63	12	35	11	32	11–12	23	5
♀ ,, ,,	48	65	12	35	13	32	11	25	4
,, Natal	51	64	14	35	13	34	13	24	5
,, Pretoria	53	66	12	37	10	36	12	24	5
,, ,,	48	56	14	34	12	29	12	23	4
,, ,,	44	63	12	35	11	33	11	21	4
,, ,,	38	58	12	33	13	31	12 11	22	4
♂ Barberton, Transvaal	57	62	12	33	12	37	15–16	25	4
,, ,, ,,	54	64	12	33	13	33	11–13	24	4–5

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	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Barberton, Transvaal	51	68	12	35	12	34	13	24	4
♀ Zoutspanburg „	41	62	12	36	13	33	12–13	24	4
Var. *pulchella.*									
♂ S. Africa (type)	54	67	12	34	16	36	13	25	5–6
Hgr. „ „	37	63	12	32	14	33	13–14	23	6 5
„ Interior of S. Africa (type of *E. annulifera*)	41	65	14	35	15	36	14	24	5
♂ Interior of S. Africa (type of *E. pulchra*)	50	63	12	31	14	32	12–13	27	4
„ W. Coast of S. Africa (type of *E. formosa*)	48	70	10	30	12	28	12–13	25	5–4
♀ Steinkopf, Little Namaqualand	56	67	12	36	11	35	13	27	4–5
Hgr. „ „	36	70	12	33	12	37	13–12	25	5–6
„ „ „	34	73	12	31	11	32	15	26	5
♂ Groendoorn-Wasserfall, Great Namaqualand	48	57	12	34	12	31	11–12	25	4
„ Quibis, Great Namaqualand	45	68	12	33	13	38	13	26	4–5
„ Angra Pequena „	47	58	12	33	11	37	16	26	5 4
Hgr. Aus „	39	72	12	36	13	36	13	25	5
♀ Gibeon, Damaraland, **S.A.M.**	45	69	12	30	11	38	10–11	24	4–5
Hgr. Ababis „ **S.A.M.**	42	65	12	31	11	32	11	25	5
♀ Jamesville, Cape Col.	47	63	12	35	14	32	14–15	27	5
♂ Deelfontein „	56	68	14	35	13	38	16–15	26	6
„ „ „	54	61	12	31	14	31	13–12	26	5–6
„ „ „	51	67	12	34	13	38	15	30	5
♀ „ „	62	69	12	35	13	39	15–17	25	5
♂ Eastern Districts of Cape Colony	53	72	12	36	14	39	14–16	25	5

Specimens in the McGregor Museum.

Forma typica.	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Warrendale, near East London	58	60	14	34	12	40	13	25	5
„ „	58	62	12	34	14	41	14	27	6
„ „	56	60	14	32	11	36	13–14	26	5
„ „	56	68	12	34	12	35	15	26	5–4
„ „	55	67	12	33	15	37	14–13	26	5–4
„ „	55	60	12	34	12	37	13	23	4–5
„ „	54	60	12	33	12	33	13–12	24	5
„ „	50	61	12	32	13	37	14–15	24	5
♀ „	58	62	12	37	11	40	14–13	24	5
„ „	58	67	12	36	14	39	16–17	27	4
„ „	58	58	14	32	10	30	14	22	5
„ „	58	66	14	37	14	40	15–14	24	5
„ „	56	75	12	39	15	45	15	24	5
„ „	56	60	12	35	11	35	14	25	5
„ „	55	61	12	34	14	39	15	25	5–6
„ „	50	60	12	34	14	34	12	23	5

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		1.	2.	3.	4.	5.	6.	7.	8.	9.
♂	Lower Norob, Gordonia	55	59	12	33	12	34	14–15	26	5
„	„ „	50	58	12	30	10	32	13–14	25	5
„	„ „	50	65	12	30	16	33	12–11	25	5
„	„ „	50	63	12	34	11	42	16–17	28	6
„	„ „	48	57	12	31	14	38	14–13	27	5
♀	„ „	55	58	12	35	10	35	15	27	5–4
„	„ „	53	58	12	33	13	39	16	25	4
„	„ „	49	69	12	34	12	35	15	27	5
„	„ „	48	56	12	32	10	29	15	28	5
♂	Lower Molopo „	53	57	12	32	10	34	13	26	4
♀	„ „	52	56	12	35	11	32	12–13	24	5
„	„ „	45	57	12	32	11	30	14	23	5
♂	Ky Ky, Gordonia	60	60	12	33	14	30	15	27	5
„	„ „	58	58	14	35	14	35	14–12	26	5–4
„	„ „	56	58	12	33	11	36	14	24	4–5
„	„ „	55	60	12	32	12	33	14–15	26	4–5
„	„ „	55	68	12	33	12	35	14–15	24	5
„	„ „	55	59	14	34	12	35	16–17	27	4
„	„ „	55	60	12	33	13	33	14	28	5
„	„ „	50	65	12	33	11	36	12–13	26	4
♀	„ „	57	53	12	35	13	33	13–14	26	4–5
„	„ „	55	63	12	35	14	36	13	23	5–6
„	„ „	55	60	12	32	11	32	13	27	5
„	„ „	46	67	12	36	10	37	15	27	5

Habitat.—*Eremias lineo-ocellata*, in the wide sense, ranges from Damaraland to Little Namaqualand, the Northern and Eastern districts of Cape Colony, the Orange River Colony, and the Transvaal. Its occurrence in Natal (Durban, S. African Museum) requires confirmation. The distribution of the varieties, whether based on the lepidosis or the markings, is a subject worthy of investigation, but which cannot be well understood without a larger series of specimens, from much more numerous localities, than has been available to me. As hinted above, I am inclined to think the division into *Forma typica* and var. *pulchella* will have to be dropped.

19. EREMIAS ASPERA.

Eremias aspera, Bouleng. Ann. S. Afr. Mus. xiii, 1917, p. 217, and Journ. Zool. Res. iii, 1918, p. 6.

Head and body rather strongly depressed. Head $1\frac{1}{3}$ times as long as broad, its length 4 to $4\frac{1}{4}$ times in length to vent, its depth equal to the distance between the centre of the eye and the tympanum; snout obtusely pointed, with the nasals very feebly swollen, as long as the postocular part of the head; a feeble concavity in the middle of the

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upper surface of the snout, extending to the middle of the frontal shield. Pileus nearly twice as long as broad. Neck a little narrower than the head. Hind limb reaching the collar or a little beyond; foot $1\frac{1}{4}$ times as long as the head; toes rather slender, feebly compressed. Tail twice or a little less than twice as long as head and body.

Upper head-shields flat, very rugose with granular asperities. Nasals in contact with each other behind the rostral, the suture between them $\frac{1}{6}$ to $\frac{1}{4}$ the length of the frontonasal, which is a little broader than long; prefrontals as long as broad or longer than broad, separated by an azygos shield; frontal a little shorter than its distance from the end of the snout, $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as broad, separated from the supraoculars by a series of small scales; parietals as long as broad; interparietal larger than the frontoparietals, in contact with or narrowly separated from a very small occipital. Two supraoculars, together hardly $\frac{2}{5}$ the length of the supraocular region, the first shorter than the second, the space in front of which is filled by 4 or 5 transverse series of granules; 6 or 7 superciliaries, separated from the supraoculars by 2 or 3 series of granules. Three nasals, lower in contact with the rostral and the first upper labial; anterior loreal as long as deep or a little deeper than long, shorter than the second; 4 or 5 upper labials anterior to the subocular, which is keeled below the eye and largely borders the mouth, its lower border much shorter than the upper. Temporal scales granular, keeled; no tympanic shield; no auricular denticulation. Lower eyelid with a transparent disc formed of two large black-edged scales.

Four pairs of chin-shields, the first 3 in contact in the middle. 31 or 32 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate; no gular fold. Collar straight, free, composed of 11 plates.

Scales granular and keeled on the nape, rhombic, feebly imbricate, and strongly keeled on the body, graduating into the caudals, larger and smooth towards the ventrals; 51 to 56 scales across the middle of the body. Ventral plates in 12 or 14 rather irregular longitudinal and 33 to 37 rather angular transverse series, the plates as long as broad or a little broader than long. Preanal region covered with small irregular plates.

Scales on upper surface of fore limb moderately large, keeled. Scales on upper surface of tibia rhombic, feebly imbricate, keeled, as large as the posterior dorsals; one series of very large and one of small plates on the lower surface; 13 or 14 femoral pores on each side. Subdigital lamellæ bicarinate, spinulose, 21 under the fourth toe.

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Upper caudal scales oblique, truncate behind, strongly and diagonally keeled, basal subcaudals feebly keeled; 24 or 26 scales in the fourth or fifth whorl.

Pale greyish brown above, with 2 dorsal and 2 lateral darker bands, and 4 series of whitish, brown-edged ocellar spots on the back; a white streak below the dark lateral band, from below the eye, through the tympanum, to the groin; tail yellowish with a brown lateral streak in the anterior half. Lower parts white.

Measurements (in millimetres):

From end of snout to vent	51
,, ,, ,, fore limb	20
Length of head	12
Width of head	9
Depth of head	6
Fore limb	19
Hind limb	33
Foot	15
Tail	102

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♀ Type	51	51	12	37	11	32	14–13	21	4–5
,, ,,	49	56	14	33	11	31	13–14	21	4

Habitat.—Bechuanaland. Described from two female specimens from Mochudi, received by the South African Museum from Mr. J. Fenton, along with examples of *Eremias lugubris* and *Ichnotropis capensis* from the same locality.

This species is closely related to the typical *E. lineo-ocellata*, differing, as I thought when describing it, in the very rugose upper head-shields, the absence of projecting scales in front of the ear, and the lower number of subdigital lamellæ (21 instead of 24 to 28). The number of scales across the body is low (51 or 56 as against 53 to 73), as compared with *E. lineo-ocellata*.

However, the large series of *E. lineo-ocellata* which I have lately been able to examine, thanks to the kindness of Miss Wilman, have shown greater variation in that species, some specimens having the upper head-shields strongly rugose, and the auricular denticulation absent. So that the lower number of subdigital lamellæ remains the only absolute difference by which to define *E. aspera*. It is therefore highly probable that this remarkable form will prove not to deserve specific rank.

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20. EREMIAS BURCHELLI.

Eremias burchelli, Dum. & Bibr. Erp. Gén. v, p. 303 (1839); Gray, Cat. Liz. p. 40 (1845); A. Smith, Ill. Zool. S. Afr., Rept. pl. xlv, fig. 1, and pl. xlviii, fig. 4; Boulenq. Cat. Liz. iii, p. 95 (1887); Hewitt, Ann. Transv. Mus. ii, 1910, p. 110; Boulenq. Journ. Zool. Res. iii, 1918, p. 6.

Head and body strongly depressed. Head $1\frac{1}{3}$ to $1\frac{2}{5}$ times as long as broad, its length 4 to $4\frac{1}{2}$ times in length to vent, its depth equal to the distance between the centre of the eye and the tympanum; snout rather pointed, with the nasal shields feebly swollen, as long as the postocular part of the head, with sharp canthus and feebly concave loreal region; no frontal concavity; cheeks rather swollen. Pileus $1\frac{3}{4}$ to 2 times as long as broad. Neck as broad as the head. Hind limb reaching the collar or between the collar and the ear in males, the shoulder in females; foot $1\frac{1}{5}$ to $1\frac{2}{5}$ times as long as the head; toes rather slender, feebly compressed. Tail $1\frac{4}{5}$ to 2 times as long as head and body.

Upper head-shields flat, smooth. Nasals forming a very short suture behind the rostral; frontonasal broader than long; prefrontals as long as broad, forming a very short suture, or separated by a small azygos shield,* or separated by the frontonasal touching the frontal†; frontal shorter than its distance from the end of the snout, $1\frac{2}{3}$ times as long as broad, narrow behind, in contact along $\frac{1}{2}$ to $\frac{3}{5}$ of its lateral border with the large supraoculars; parietals $1\frac{1}{5}$ to $1\frac{1}{2}$ times as long as broad; interparietal as large as or a little larger than the frontoparietals, in contact with the occipital, which is $\frac{1}{4}$ to $\frac{1}{3}$ its length and projects beyond the posterior border of the parietals. Two supraoculars, the first as long as or a little shorter than its distance from the second loreal, the space in front of it filled by 7 to 13 small scales or granules; 7 to 9 superciliaries, first not or but little longer than the following, separated from the supraoculars by a series of granules, or 2 series in front and 2 or 3 behind. Three nasals, lower in contact with the rostral and the first upper labial, posterior small and sometimes excluded from the nostril‡; anterior loreal as long as broad or a little longer than broad, shorter than the second; 4 or 5, rarely 6, upper labials anterior to the subocular, which is keeled below the eye and largely borders the mouth, its lower border much shorter than the upper. Temporal scales

* In the type specimen.

† In one of the specimens from Andrew Smith's Collection.

‡ In the type specimen.

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granular, smooth; no tympanic shield; no auricular denticulation. Lower eyelid opaque or semitransparent, with 12 to 15 enlarged scales, in two rows, in the middle.

4 pairs of chin-shields, the first three in contact in the middle. 26 to 33 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate; gular fold absent or merely indicated. Collar straight, free, composed of 9 to 13 plates.

Scales juxtaposed, granular, smooth, larger towards the ventrals, 65 to 75 scales across the middle of the body. Ventral plates in 14, rarely 16,* straight or slightly irregular longitudinal and 29 to 35 more or less angular transverse series, as long as broad or a little longer than broad, a few rarely a little broader than long. Preanal region with small irregular plates.

Scales on upper surface of fore limb not larger than gulars, smooth. Scales on upper surface of tibia like the dorsals, or slightly larger; one series of very large and one or two of small plates on the lower surface. 10 to 15 femoral pores on each side. Subdigital lamellæ bi- or tricarinate, spinulose, 25 to 28 under the fourth toe.

Upper caudal scales oblique, truncate, feebly and diagonally keeled, lower smooth; 38 to 46 scales in the fourth or fifth whorl.

Coloration very variable.

The type specimen is yellowish brown with 6 longitudinal series of dark brown markings, the median pair consisting of very narrow spots or short lines, the other of broader spots and enclosing round whitish spots.

Another specimen, from Andrew Smith's Collection, is nearly black above, with small whitish spots, the vertebral area forming a light-edged band which bifurcates between the shoulders and extends to the supraocular region; tail brown, with three black streaks.

A third, from the Eastern districts of Cape Colony, is greyish above, with 5 black streaks on the nape and the anterior part of the body and 4 on the rest of body, each of these streaks, from between the shoulders, bearing small irregular whitish spots; 5 longitudinal black streaks on the parietal region.

Limbs with round whitish spots or dark-edged ocelli. Lower parts white.

Measurements (in millimetres):

	1.	2.	3.
From end of snout to vent . . .	57	54	62
„ „ „ fore limb . .	21	21	21

* In a specimen from Smithfield, Orange River Colony, preserved in the South African Museum.

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	1.	2.	3.
Length of head	14	13	13
Width of head	10	9	10
Depth of head	6	6	6
Fore limb	22	20	22
Hind limb	34	31	33
Foot	17	17	18
Tail	110	115	116

1. ♂, Karoo flats, type. 2. ♂, E Distr. of Cape Colony. 3. ♀, Karoo?

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Karoo flats (type)	57	70	14	35	11	31	14–13	25	4
,, ,,	47	75	14	33	13	28	14–15	25	4
,, ,,	41	67	14	32	9	33	14	25	4
♀ ,, (?)	62	65	14	35	11	28	12–10	27	4
♂ E. Distr. of Cape Colony	54	67	14	34	10	30	14–15	26	5
,, ,,	50	69	14	29	11	26	12–13	28	6–5

Habitat.—"Karoo flats, on the South-West Coast of Africa, particularly Little Namaqualand, towards the Great Orange River" (Smith). Mr. J. P. M. Weale obtained specimens in the Eastern district of Cape Colony. There are further records from Clanwilliam and the Middleburg district of Cape Colony, Matjesfontein and Graaff-Reinet.

21. EREMIAS CAPENSIS.

Lacerta capensis, A. Smith, Mag. N. H. ii, 1838, p. 93.

Eremias capensis, Dum. & Bibr. Erp. Gén. v, p. 302 (1839); Gray, Cat. Liz. p. 40 (1845); A. Smith, Ill. Zool. S. Afr., Rept. pl. xlv, fig. 2, and pl. xlviii, fig. 7 (1845); Peters, Mon. Berl. Ac. 1870, p. 114; Bouleng. Cat. Liz. iii, p. 96 (1887); Hewitt, Ann. Transv. Mus. ii, 1910, p. 110; Sternf. Mitt. Zool. Mus. Berl. v, 1911, p. 405; Bouleng. Journ. Zool. Res. iii, 1918, p. 6.

Eremias laticeps, A. Smith, Ill. pl. xlvi, fig. 1, and pl. xlviii, fig. 3.

Head and body strongly depressed. Head about $1\frac{2}{3}$ times as long as broad, its length $3\frac{2}{3}$ to 4 times in length to vent in males, 4 to $4\frac{2}{3}$ times in females, its depth equal to the distance between the centre of the eye and the tympanum; snout ather obtuse, with the nasal shields strongly swollen, as long as the postocular part of the head,

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with sharp canthus and feebly grooved loreal region; no frontal concavity; cheeks swollen. Pileus $1\frac{3}{4}$ to 2 times as long as broad. Neck as broad as the head. Hind limb reaching the ear or the eye in males, the collar or between the collar and the ear in females; foot $1\frac{1}{6}$ to $1\frac{1}{3}$ times as long as the head; toes rather slender, feebly compressed. Tail $1\frac{3}{4}$ to about 2 times as long as head and body.

Upper head-shields flat or rather convex, smooth. Rostral in contact with the frontonasal, with rare exceptions; frontonasal as long as broad or a little longer than broad; prefrontals as long as broad or a little longer than broad, forming a very short median suture, or separated by one or two small azygos shields*; frontal as long as or shorter than its distance from the end of the snout, $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as broad, narrow behind, in contact along half the length of its lateral border with the large supraoculars or separated from them by a series of granules†; parietals as long as broad or a little longer than broad; interparietal as large as or larger than the frontoparietals; occipital as broad as or narrower than the interparietal and $\frac{1}{4}$ to $\frac{1}{2}$ its length, rarely‡ separated from it by a small shield. Two supraoculars, the first as long as or shorter than its distance from the second loreal, the space in front of it filled by 13 to 30 small scales or granules; 8 to 12 superciliaries, first not or but little longer than the following, separated from the supraoculars by 1 or 2 series of granules, sometimes 3 series behind. Three nasals, lower in contact with the rostral and the first upper labial, posterior small; anterior loreal as long as deep or a little longer than deep, shorter than the second; 5 to 7, rarely 4, upper labials anterior to the subocular, which is keeled below the eye and largely borders the mouth, its lower border much shorter than the upper. Temporal scales granular, smooth; no tympanic shield; no auricular denticulation. Lower eyelid opaque or semitransparent, with 10 to 14 enlarged scales, in two rows, in the middle.

5 pairs of chin-shields, the first three in contact in the middle. 24 to 36 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate; no gular fold. Collar straight, free, composed of 7 to 13 plates.

Scales juxtaposed, granular, smooth, round or squarish and flat on

* In 6 specimens out of the 12 examined.

† In 6 specimens. Also in the type described by Smith in 1838, which I believe to recognize in one of the specimens (*b*) of *E. burchelli* in Gray's Catalogue, which does not agree in the position of the subocular shield with the diagnosis in that work.

‡ In one specimen only.

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the back, smaller on the upper part of the sides, larger again towards the ventrals, and graduating into them, 48 to 62 across the middle of the body. Ventral plates in 16 or 18 more or less irregular longitudinal series and 31 to 36 more or less angular transverse series, the plates sometimes forming a tessellation, as long as broad or longer than broad. Preanal region with small irregular scales.

Scales on upper surface of fore limb moderately large, not broader than long, smooth or very obtusely keeled. Scales on upper surface of tibia roundish, smooth, not or but slightly larger than dorsals; one series of very large and one or two of small plates on the lower surface. 12 to 18* femoral pores on each side. Subdigital lamellæ bi- or tricarinate, spinulose, 28 to 31 under the fourth toe.

Upper caudal scales oblique, truncate, those at the base smooth or feebly keeled; basal subcaudals smooth. 28 to 38 scales in the fourth or fifth whorl.

Coloration very variable.

A young from Steinkopf, Little Namaqualand, is black above with 8 white streaks in front; at a short distance behind the occiput the median pair fuses to a single streak which extends to the level of the collar; towards the middle of the body the next pair fuses to a single, broader streak which ends on the basal part of the tail; there are thus the following number of white streaks from the occiput to the anterior third of the tail: 8, 7, 5, 3, 2. The limbs with large white spots, the tail red.

A male from Angra Pequena is also striated, dark brown and brownish white, but there is a whitish median streak on the nape and the vertebral streak on the body extends as far back as the pelvic region; the streaks thus number 9, 8, 7, 3, 2 in succession from front to back.

The type of *E. laticeps* which is preserved in the British Museum has 7 whitish streaks on the nape, 6 on the scapular region, 5 on the body, and 3 on the pelvic region and on the base of the tail; the brown spaces between the streaks speckled and spotted with white. The markings are the same in a specimen from Port Elizabeth.

Other individuals have the light streaks more indistinct and the back may be yellowish brown or orange red, with or without small dark spots or vermiculations, or with two dorsal bands of crowded black spots, as in the specimen figured by Smith; white ocellar spots on the sides.

A male labelled "South Africa," as well as the supposed type of *L. capensis*, is greyish brown above with a dark brown vertebral

* 16 to 20, according to Duméril & Bibron.

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streak speckled with white, bifurcating towards the head on the anterior third of the back, the fork embracing another, vertebral, streak from the occiput to the level of the collar; sides of head and body dark brown, closely spotted and speckled with whitish; limbs dark brown with whitish, black-edged ocelli.

The tail usually bears a dark lateral streak and becomes reddish or orange towards the end. Lower parts white.

Measurements (in millimetres):

	1.	2.	3.	4.
From end of snout to vent	58	53	66	70
„ „ „ fore limb	23	20	24	26
Length of head	16	14	17	16
Width of head	11	10	12	11
Depth of head	7	6·5	9	7
Fore limb	25	20	27	27
Hind limb	40	35	42	46
Foot	20	17	20	23
Tail	115	—	133	—

1. ♂, type ♀. 2. ♂, type of *E. laticeps*. 3. ♂. E. Distr. of Cape Colony. 4. ♀, Little Namaqualand.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Type ♀	50	62	16	32	9	29	12–11	28	6–7
„ Karoo	58	55	18	36	8	26	12	28	7
„ „	58	51	16	33	8	32	12	30	5–6
„ Mouth of Orange R. (type of *E. laticeps*)	53	48	18	31	12	24	15–14	28	5
Yg. Steinkopf, Little Namaqualand	35	56	16	33	10	31	18–17	28	5
♂ Little Namaqualand	66	57	16	34	11	29	16–15	29	5
♀ „	70	60	18	35	10	34	17–16	28	6–7
♂ Angra Pequena, Great Namaqualand	53	56	16	36	13	36	12	29	4–5
♀ Port Elizabeth	48	56	16	35	7	25	14	28	6
♂ E. Districts of Cape Colony	66	52	18	34	13	26	13–14	31	6–5
„ „	62	48	16	32	11	33	14–15	28	6–7
„ S. Africa	59	54	16	36	10	28	14	29	6

Habitat.—According to Smith this species inhabits the arid Karoo flats within the Cape Colony, as well as the districts immediately beyond it. The types of *E. laticeps* were obtained towards the mouth of the Orange River. It extends northward to Great Namaqualand and eastward to the eastern districts of Cape Colony.

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22. EREMIAS VELOX.

Lacerta velox, Pallas, Reise Russ. R. i, p. 457 (1771); Daud. Hist. Rept. iii, p. 202 (1802); Eversm. N. Mém. Soc. Nat. Mosc. iii, 1834, p. 355, pl. xxx, fig. 3.

Lacerta cruenta, Pallas, l.c.

Lacerta deserti, Lepéchin, Tageb. Reise Russ. R. i, p. 318, pl. xxii, figs. 3, 4 (1783); Daud. t.c. p. 199.

Scincus cruentatus, Daud. t.c. p. 278.

Lacerta coccinea, Merrem, Tent. Syst. Amph. p. 69 (1820).

Lacerta tigrina, Kuhl, Beitr. Zool. Vergl. Anat. p. 119 (1820).

Lacerta argulus, Eichw. Zool. Spec. Ross. Pol. iii, p. 188 (1831).

Podarcis velox, Ménétr. Cat. Rais. p. 62 (1832); Eichw. Faun. Casp.-Cauc. p. 76 (1841); Schreib. Herp. Eur. p. 376 (1875).

Lacerta vittata, Eversm. t.c. p. 358, pl. xxxi, fig. 4.

Eremias velox, Wiegm. Herp. Mex. p. 9 (1834); Gray, Cat. Liz. p. 40 (1845); Blanf. Zool. E. Pers. p. 374 (1876); Kessler, Tr. St. Petersb. Nat. Soc. viii, 1878, Suppl. p. 166; Bouleng. Cat. Liz. iii, p. 97 (1887); Boettg. Zool. Jahrb., Syst. iii, 1888, p. 910; Bouleng. Faun. Ind., Rept. p. 178 (1890); Nikolsky, Ann. Mus. Zool. St. Pétersb. i, 1897, p. 329, and Fedtschenko's Reise, Zool. ii, pt. vii, p. 34 (1899); Werner, Sitzb. Ak. Wien, cxi, 1902, p. 1091, and Zool. Jahrb., Syst xix, 1903, p. 333; Elpatiebski, Amph. Rept Aral Exped. p. 11, pls. i, ii (1903); Nikolsky, Herp. Ross. p. 146 (1905); Bedriaga, Wiss. Res. Przewalski Reis., Amph. Rept. p. 516 (1912); Schreib. Herp. Eur., Ed. 2, p. 341 (1912); Nikolsky, Herp. Caucas. p. 96 (1913); Bouleng. Journ. Zool. Res. iii, 1918, p. 7.

Eremias cæruleo-ocellata, Dum. & Bibr. Erp. Gén. v, p. 295 (1839).

Aspidorhinus gracilis, Eichw. Faun. Casp.-Cauc. p. 74, pl. xi, figs. 4–6.

Eremias variabilis (non Pall.), De Fil. Viag. Pers. p. 354 (1865).

Eremias erythrurus, Severzow, Faun. Turkest. p. 71 (1873).

Eremias persica, Blanf. Ann. & Mag. N. H. (4) xiv, 1874, p. 370, and op. cit. p. 370, pl. xxvi, fig. 1; Nikolsky, Ann. Mus. Zool. St. Pétersb. i, 1897, p. 330; Bedriaga, op. cit. p. 527.

Podarces (*Eremias*) *velox*, Strauch, Voy. Przewalski, Rept. p. 26, (1876).

Podarces (*Eremias*) *persica*, Strauch, l.c.

Eremias strauchi, Kessl. t.c. p. 166, pl. ii.

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Eremias velox, var. *persica*, Boettg. in Radde, Faun. Flor. Casp.-Geb. p. 50 (1886).

Eremias velox, var. *roborowskii*, Bedriaga, Ann. Mus. Zool. St. Pétersb. x, 1907, p. 181, and op. cit. p. 516, pl. viii, fig. 11.

Eremias velox strauchi, Nikolsky, Herp. Caucas. p. 98.

Head and body moderately depressed. Head $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as broad, its length $3\frac{1}{2}$ to 4 times in length to vent in males, $3\frac{3}{4}$ to $4\frac{1}{3}$ times in females, its depth equal to the distance between the anterior corner of the eye and the tympanum; snout pointed, with more or less swollen nasals, as long as the postocular part of the head; canthus rostralis strong, loreal region feebly concave; a more or less distinct concavity on the upper surface of the snout, from the frontonasal to the middle or the posterior extremity of the frontal. Pileus 2 to $2\frac{1}{4}$ times as long as broad. Neck as broad as the head or a little constricted. Hind limb reaching the shoulder, the collar, or between the collar and the ear in males, the axil, the shoulder, or the collar in females*: foot as long as the head or a little longer, not more than $1\frac{1}{4}$ times: toes moderately slender, feebly compressed. Tail $1\frac{1}{2}$ to a little over 2 times as long as head and body, more or less flattened at the base, feebly compressed posteriorly.

Upper head-shields flat or rather convex, usually smooth, rarely rugose; nasals in contact behind the rostral, the suture between them $\frac{1}{3}$ to $\frac{3}{4}$ the length of the frontonasal, which is broader than long; prefrontals as long as broad or longer than broad, forming a median suture†; frontal as long as or shorter than its distance from the end of the snout, $1\frac{2}{3}$ to 2 times as long as broad, narrow behind; parietals as long as broad or a little longer than broad; interparietal usually smaller than the frontoparietals, sometimes much smaller, rarely as large; no occipital. Two large supraoculars, the first as long as or a little shorter than the second and as long as or longer than its distance from the second loreal,‡ the space in front of it filled by one or two shields and granules, or a number of small granular scales; a small posterior supraocular, usually band-like, rarely broken up into granules; exceptionally § a complete series of granular scales between the supraoculars and the frontal; 5 to 7 superciliaries, rarely 4 or 8, first

* A single female specimen from the Ferghana district is remarkable for the very short hind limb, which reaches only the elbow.

† Exceptionally with a small azygos shield between them (*E. strauchi*, Kessler).

‡ One exception (male from Tchindcheili).

§ In 9 specimens out of 36 examined.

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longest; a series of granules, very rarely two, between the supraoculars and the superciliaries. Rostral as deep as broad or a little broader than deep (not more than $1\frac{1}{4}$ times), narrower beneath than above; three nasals, the lower in contact with the 2 or 3 first upper labials and usually with the rostral*; anterior loreal as long as deep or deeper than long, very rarely a little longer than deep† or absent,‡ shorter than the second; subocular keeled below the eye, bordering the mouth, sometimes broadly, sometimes narrowly, between the 5th and 6th or 6th and 7th, rarely 7th and 8th, upper labials. Temporal scales granular, smooth; tympanic shield present; no auricular denticulation. Lower eyelid opaque or semitransparent, covered with small scales.

5 pairs of chin-shields, rarely 4 or 6, the 3, rarely 2, anterior in contact in the middle. 22 to 32§ gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate; gular fold usually distinct. Collar curved, free, serrated, composed of 9 to 14 plates.

Scales granular, smooth, 49 to 63 across the middle of the body. Ventral plates as long as broad, or a little broader than long, or a little longer than broad, forming more or less regular oblique longitudinal series or tessellated; in 28 to 35 slightly angular transverse series, the longest of which contain 14 or 16, rarely 12, plates. Preanal region covered with small irregular plates, sometimes with an enlarged median plate posteriorly.

Upper surface of arm with rhombic smooth scales which are larger than the largest gulars. Scales on upper surface of tibia similar to the dorsals, but smaller; lower surface with one row of very large and one or two of small plates. 17 to 23‖ femoral pores on each side, the two series narrowly separated or meeting in the middle. Subdigital lamellæ unicarinate, rarely tricarinate, 19 to 25 under the fourth toe.

Upper caudal scales oblique, truncate or obtusely pointed, more or less strongly and diagonally keeled, lower, at the base, smooth; 24 to 38 scales in the fourth or fifth whorl behind the postanal granules.

* Narrowly in 24 specimens, extensively in 3, separated in 9.

† In one male from Novo Alexandrovsk. I cannot understand how Schreiber can have mentioned the elongate shape of the anterior loreal as a character distinguishing *E. velox* from *E. arguta*.

‡ In a young from the Caucasus.

§ 19 to 33 according to Bedriaga.

‖ 15 to 24 according to Bedriaga.

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The young are streaked with black and white, but the number of streaks varies according to individuals, and the white streaks are sometimes broken up into spots on the body. There may be 5 white streaks throughout the upper surface, the outer being the superciliary or dorsolateral, or 5 on the nape and 4 on the body, or even 6 quite in front, when the vertebral bifurcates as is sometimes the case; 3 or 4 on the base of the tail. 2 or 3 white streaks along each side, the black interspaces usually spotted with white; head variegated with black, the black streaks often extending on the occipital region. Limbs black, with round white spots. Lower surface and posterior part of tail red.

This striation is sometimes retained in adult females, the only difference being that the interspaces between the light streaks are grey or brown instead of black, and sometimes spotted with black. In other specimens the light streaks are only faintly marked and longitudinal series of squarish black spots run between them, or they may entirely disappear, the back being irregularly spotted with black, each side being relieved with one or two series of large white or blue, black-edged ocelli, the upper of which correspond to the dorsolateral streak; in addition to these ocelli a black vertebral stripe is often present. Some specimens have 6 series of ocelli on the back and are thus not unlike *E. argyta* in their markings. More or less distinct ocellar spots are present on the limbs. Lower parts white, sometimes tinged with pink.

In Bedriaga's var. *roborowskii*, from the Kami Desert, in Central Asia, the females are streaked, but the males are covered with small black spots irregularly distributed above on a pale brown or yellowish-brown ground, and a series of blue ocellar spots edged with brown or black extends on each side from above the shoulder; these may be accompanied by smaller ocelli with pale blue or white centres. The sides of the head may be washed with red; the tail may be greenish or green (red in the young). Lower parts yellow, often reddish, the limbs sometimes greenish.

Measurements (in millimetres):

	1.	2.	3.	4.	5.	6.
From end of snout to vent .	81	71	67	58	70	69
„ „ „ fore limb	30	27	25	22	25	24
Length of head . . .	20	17	18	15	17	16
Width of head . . .	13	12	11	10	10	10
Depth of head . . .	11	9	9	8	8	8
Fore limb	26	25	27	22	26	21
Hind limb	45	41	43	35	38	32

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	1.	2.	3.	4.	5.	6.
Foot.	22	20	22	19	20	16
Tail	140	147	135	117	115	—

1. ♂, W. Turkestan. 2. ♂, Puli Hatun, Transcaspia. 3. ♂, Tchinas, Turkestan. 4. ♂, New Gubran, Turkestan. 5. ♀, Tchinas. 6. ♀, Ferghana district.

Habitat.—Asia Minor, Transcaucasia and from the North and East Coasts of the Caspian Sea to Chinese Turkestan, Western Mongolia, Bokhara and North-Eastern Persia.

Var. PERSICA, Blanford.

The predominating form in Persia and N.W. Baluchistan is not strictly a geographical variety, as Nikolsky has recorded the typical *E. velox* from North-Eastern Persia, where it occurs alongside the var. *persica*.* Although regarded by some as a distinct species, the distinctive characters appear to me too slight to justify such a course. The principal character resides in the smooth or obtusely keeled caudal scales, which are also generally smaller on the base of the tail—32 to 46 in the fourth or fifth whorl. The size is usually larger, and the limbs may exceptionally be a little longer, sometimes reaching the ear in males; in one specimen† the foot is 1⅓ times as long as the head. The frontonasal is usually longer in proportion to its width, exceptionally as long as broad, and 2 to 6 times as long as the suture between the nasals above the rostral; in three specimens an azygos shield is present between the prefrontals; the interparietal is always much smaller than the frontoparietals; the lower nasal is often extensively in contact with the rostral,‡ and very rarely separated from it.§ 26 to 35 gular scales in a median longitudinal series. 54 to 72 scales across the middle of the body. 18 to 25 femoral pores on each side.

The young are striated as in the typical form. The adults have the upper parts grey or brown, with round black spots, or with longitudinal series of black dots, or streaked or irregularly spotted as in the typical form, usually with a black lateral band with small or large white spots; a dark vertebral streak is never present, except

* Blanford's *E. velox* from Ghilan must be referred to this variety if the absence of keels on the caudal scales is of any importance.

† From W. of Ispahan.—Its measurements are here given, column 2.

‡ In 21 specimens out of 48 examined.

§ In 5 specimens only.

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on the nape. In a male from Karman the body is ocellated all over, the ocelli forming 8 longitudinal series.

Measurements (in millimetres):

	1.	2.	3.	4.
From end of snout to vent	76	71	79	90
„ „ „ fore limb	27	29	29	35
Length of head	18	18	19	21
Width of head	12	12	12	15
Depth of head	10	9	10	11
Fore limb	28	28	32	33
Hind limb	43	50	52	54
Foot	21	24	24	26
Tail	—	130	130	—

1. ♂, Near Ispahan, type. 2. ♂, W. of Ispahan. 3. ♀, Rayin, type. 4. ♀, Baluchistan.

Habitat.—Persia (between 1000 and 3000 metres); also known from Magas in Baluchistan, and from the Helmand in Afghanistan.

Particulars of Specimens Examined.

Forma typica.	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ European Coast of Caspian Sea	67	60	14	31	13	28	18–19	22	6–7
♀ „	61	54	16	33	13	26	21–22	24	5
„ „	60	54	14	31	10	26	21	25	6
„ „	60	52	14	31	10	25	19–20	25	6
♂ Novo Alexandrovsk	57	53	16	28	12	24	17–18	21	5–6
♀ Puli Hatun, Transcaspia	71	49	12	29	13	25	17	20	6
♂ W. Turkestan	62	51	16	31	10	32	20–18	23	6–5
„ Bokhara	56	53	14	29	9	28	18	23	7–6
„ Golodnaja Steppes	57	56	14	30	12	24	21	23	6
♀ „	72	56	14	33	11	23	21	23	5–6
„ „	66	62	16	31	10	24	18	20	5–6
♂ Tchincheili R., Kara Kum.	66	62	16	33	9	28	23–21	25	6
„ „ „	63	63	14	30	14	28	18–20	20	6
♀ „ „	59	51	14	32	9	26	17–18	20	6
„ „ „	56	60	16	33	12	26	20	19	6
♂ Upper Ili R.	64	55	14	31	13	27	21	23	5
♀ „	68	57	16	35	11	30	21–19	23	6
„ Kasalpri, Lepsa R.	47	52	16	32	11	25	20	21	5
♂ Tchinas, Syr Daria	67	62	14	32	11	27	21	24	6
♀ „ „	70	56	14	32	9	27	19	21	6
„ „ „	68	60	14	31	12	25	19–20	22	6
„ Syr Daria Steppes, **P.M.**	76	52	14	31	11	25	21–20	21	5
„ Arganatinsk	62	57	16	33	11	29	19–20	24	5–6
♂ Khorgos, Tianshan	67	49	16	31	10	30	22	20	6

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	1.	2.	3.	4.	5.	6.	7.	8.	9.
♀ Ferghana District	69	55	16	34	9	24	17	22	6
♂ Lower Kungess R.	65	49	16	31	14	24	18	20	5
♀ „	60	56	14	34	10	28	19	23	5–6
♂ W. Turkestan, **P.M.**	81	57	14	31	10	27	21	23	6
„ New Gulran, E. Turkestan	58	50	14	31	13	22	17	22	6
Var. *persica*.									
♂ Kirjawa, E. of L. Urmi	64	60	14	30	9	29	20	22	6–5
♀ „ „	60	60	14	32	11	26	18	21	6–5
♂ N. Persia	63	54	14	29	12	27	23–24	25	5–6
♀ Ghilan, S. of Resht	62	61	14	33	12	26	18 19	?	7–6
♂ Near Teheran	80	63	16	31	11	31	19–20	22	6 7
„ „	78	64	16	31	10	35	25–24	23	6
„ „	70	67	16	30	11	31	20–19	21	6
„ Near Ispahan (type)	76	62	14	33	14	33	19	22	5
„ „ „	71	57	16	32	8	30	20–19	22	5
„ „ „	68	61	14	33	12	30	19-21	23	5 6
„ W. of Ispahan	71	72	16	30	13	34	19–18	22	6
„ N.W. of Ispahan	68	62	16	32	11	30	19–20	23	6
„ „	62	61	16	33	10	29	19–21	21	6–5
♀ „	70	58	14	34	10	29	18	22	6–5
♂ Abadeh	88	61	14	29	11	30	19	23	6
„ „	70	56	14	31	10	26	18–17	24	6
♀ „	86	64	16	32	9	37	20–19	21	6
„ „	65	58	14	31	9	32	19–20	22	6–5
♂ Karman	68	57	14	29	9	32	21–20	22	7–5
♀ Rayin, S.E. of Karman (type)	79	64	14	32	11	31	22–21	23	7–6
„ „ „ „	70	60	14	30	9	31	21–19	20	6 5
♂ Nasirabad, Seistan	91	60	14	29	9	30	19	24	6
♀ Baluchistan	90	64	14	32	12	31	18	23	6
♂ Helmand R., Afghanistan	50	66	14	30	10	30	22 23	23	6

23. EREMIAS BEDRIAGÆ.

Eremias bedriagai, Nikolsky, Ann. Mus. Zool. St. Pétersb. xvi, 1911, p. 278; Bouleng. Journ. Zool. Res. iii, 1918, p. 7.

Agrees in most respects with *E. velox*, but only 18 gular scales in a longitudinal series instead of 19 to 35, and 26 transverse series of ventral plates instead of 28 to 35. Two series of granules between the supraoculars and the superciliaries. 14 ventral plates in the longest transverse series. 48 scales across the body. 9 plates in the collar. 21 femoral pores on each side. Caudal scales smooth, truncate.

Yellowish grey above, with 3 dorsal series of small black spots and a single lateral series of blue, black-edged ocelli.

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From end of snout to vent 55 millim.; tail 89; fore limb 22; hind limb 36.

This species is based on a single specimen from Kelif, East Bokhara, preserved in the Petrograd Museum, which may be merely an aberrant *E. velox*. More specimens are required to establish the validity of *E. bedriagæ*, which I regard as extremely doubtful.

24. EREMIAS NIKOLSKII.

Eremias nikolskii, Bedriaga, in Nikolsky, Herp. Ross. p. 478 (1905), Ann. Mus. Zool. St. Pétersb. x, 1907, p. 233, and Wiss. Res. Przewalski Reis., Amph. Rept. p. 536, pl. viii, fig. 6 (1912); Boulenger, Journ. Zool. Res. iii, 1918, p. 7.

Body rather strongly depressed. Head depressed, $1\frac{1}{2}$ times as long as broad, its length $4\frac{2}{3}$ times in length to vent: snout rather long, obtusely pointed, with the nasals scarcely swollen, with very feeble concavity above, extending to the frontal shield; canthus rostralis obtuse, loreal region feebly concave. Pileus twice as long as broad. Neck narrower than the head. Hind limb not reaching the axil; foot slightly longer than the head; toes slender.

Upper head-shields smooth; nasals in contact behind the rostral, the suture between them about $\frac{1}{2}$ the length of the frontonasal, which is broader than long; prefrontals longer than broad, forming a median suture; frontal a little shorter than its distance from the end of the snout, $1\frac{2}{3}$ times as long as broad, $\frac{2}{3}$ of its lateral border in contact with the large supraoculars; parietals longer than broad; interparietal smaller than the frontoparietals; no occipital. Two large supraoculars, preceded by 3 small plates and followed by one small one; the first of the two large supraoculars as long as the second and longer than its distance from the second loreal; a series of granules between the supraoculars and the superciliaries. Rostral $1\frac{1}{3}$ times as broad as deep; three nasals, the lower just touching the rostral, resting on the two or three first upper labials; anterior loreal deeper than long, shorter than the second; subocular bordering the mouth, between the 5th and 6th or 6th and 7th upper labials; temporal scales hexagonal, smooth; tympanic shield present; no auricular denticulation. Lower eyelid opaque.

5 pairs of chin-shields, the 3 anterior in contact in the middle: 23 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate; gular fold distinct. Collar curved, free, serrated, composed of 10 large plates.

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Scales granular, smooth, 63 across the middle of the body. Ventral plates as long as broad or longer than broad, in 14 oblique longitudinal and 31 transverse series. Preanal region covered with small irregular plates.

Upper surface of arm with small smooth scales. Scales on upper surface of tibia similar to dorsals; lower surface with one row of large and one of small plates. 17 femoral pores on each side, the two series narrowly separated in the middle.

Basal upper caudals obtusely keeled, lower smooth.

Brown above, with 9 longitudinal series of small dark spots, the outer on the limit of the ventral region; the dorsolateral series formed of larger, squarish spots, light-edged on each side; hind limbs with light, dark-edged spots. Lower parts yellowish white.

Measurements (in millimetres):

From end of snout to vent	65
Length of head	14
Width of head	9
Depth of head	7
Fore limb	21
Hind limb	32
Foot	15

This species is established on a single female specimen from Tengu-Bar, Southern Alai, Russian Turkestan, preserved in the Petrograd Museum. The above account is compiled from Bedriaga's description and figure.

E. nikolskii is regarded by its describer as connecting *E. velox* with *E. multiocellata*, but differing from both by the broader rostral*; in the narrow separation of the series of femoral pores it is easily distinguished from the latter species. But I cannot help feeling doubtful as to the validity of the species, which may be founded on an aberrant specimen of *E. velox*.

25. EREMIAS REGELI.

Eremias regeli, Bedriaga, in Nikolsky, Herp. Ross. p. 479 (1905), Ann. Mus. Zool. St. Pétersb. x, 1907, p. 235, and Wiss. Res. Przewalski Reis., Amph. Rept. p. 544, pl. viii, fig. 2 (1912); Boulenger, Journ. Zool. Res. iii, 1918, p. 7.

Head and body moderately depressed. Head a little more than $1\frac{1}{3}$

* Its lower border longer than the space between the first large supraocular and the anterior loreal (prepalpebral space of Bedriaga).

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times as long as broad, its length 4 times in length to vent; snout rather long, very obtuse, with the nasals very feebly swollen, with a median concavity above, extending along the frontal shield; canthus rostralis sharp, loreal region grooved. Pileus twice as long as broad. Neck as broad as the head. Hind limb extending a little beyond the shoulder; foot a little longer than the head. Tail nearly twice as long as head and body, flattened at the base, slightly compressed posteriorly.

Upper head-shields smooth; nasals in contact behind the rostral, the suture between them $\frac{1}{5}$ the length of the frontonasal, which is broader than long; prefrontals longer than broad, forming a median suture; frontal a little shorter than its distance from the end of the snout, nearly twice as long as broad, $\frac{2}{3}$ of its lateral border in contact with the large supraoculars; parietals scarcely longer than broad; interparietal smaller than the frontoparietals; no occipital. Two large supraoculars, followed by a small one, the space between the first and the posterior loreal equal to the length of the former and filled by 8 to 10 small scales; a series of granules between the supraoculars and the superciliaries. Rostral twice as broad as deep; three nasals, the lower extensively in contact with the rostral and resting on the two first upper labials and just touching the third; anterior loreal nearly as long as deep, shorter than the second; subocular bordering the mouth, between the 5th and 6th or 6th and 7th upper labials; temporal scales hexagonal, smooth; tympanic shield present; no auricular denticulation. Lower eyelid opaque.

5 pairs of chin-shields, the 3 anterior in contact in the middle. 20 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate; gular fold distinct. Collar curved, free, strongly serrated, composed of 12 plates, 9 of which are large.

Scales granular, flat, smooth, a little broader than long, smaller on the upper part of the sides, 56 across the middle of the body. Ventral plates mostly as long as broad, in 12 oblique longitudinal and 26 transverse series. A rather large preanal plate, surrounded by smaller plates.

Upper surface of arm with small smooth scales. Scales on upper surface of tibia similar to dorsals; lower surface with a single row of very large shields. 21 to 24 femoral pores on each side, the two series very narrowly separated in the middle.

Upper caudal scales with strong diagonal keels, lower smooth on the base of the tail.

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Greyish yellow above, with 7 longitudinal series of small dark brown spots dotted with yellow; hind limb with large round yellowish spots. Lower parts yellowish white.

Measurements (in millimetres):

From end of snout to vent	66
Length of head	16·5
Width of head	10·5
Depth of head	9
Fore limb	24·5
Hind limb	36·5
Foot	18·5
Tail	125

The above is an abstract of Bedriaga's description of a single male specimen from Shirabad, Russian Turkestan, preserved in the Petrograd Museum.

Distinguished from *E. nikolskii* by the broader rostral extensively in contact with the lower nasal.

26. EREMIAS FASCIATA.

Eremias fasciata, Blanf. Ann. & Mag. N.H. (4) xiv, 1874, p. 32, and Zool. E. Pers. p. 374, pl. xxv, fig. 3 (1876); Bouleng. Cat. Liz. iii, p. 99 (1887), and Faun. Ind., Rept. p. 179 (1890); Nikolsky, Ann. Mus. Zool. St. Pétersb. ii, 1897, p. 25, Herp. Ross. p. 155 (1905), and Herp. Caucas, p. 99 (1913); Bouleng. Journ. Zool. Res. iii, 1918, p. 7.

Podarces (*Eremias*) *fasciata*, Strauch, Voy. Przewalski, Rept. p. 26 (1876).

Head and body rather strongly depressed, limbs slender. Head $1\frac{1}{2}$ to $1\frac{3}{5}$ times as long as broad, its length $3\frac{3}{4}$ to $4\frac{1}{3}$ times in length to vent, its depth equal to the distance between the centre of the eye and the tympanum; snout pointed, with the nasals swollen, as long as the postocular part of the head; canthus rostralis obtuse, loreal region feebly concave. Pileus $1\frac{3}{4}$ to 2 times as long as broad. Hind limb reaching the ear in males, the shoulder, the collar, or between the collar and the ear in females; foot $1\frac{1}{3}$ to $1\frac{2}{5}$ times the length of the head; toes slender, not compressed, very feebly but distinctly denticulate laterally. Tail $1\frac{3}{5}$ to 2 times as long as head and body.

Upper head-shields flat, smooth; nasals in contact behind the rostral, the suture between them $\frac{1}{5}$ to $\frac{2}{3}$ the length of the frontonasal, which is

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broader than long*; prefrontals nearly as long as broad, forming a median suture; frontal shorter than its distance from the end of the snout, $1\frac{2}{3}$ to 2 times as long as broad, in contact with the large supraoculars or separated from them by a series of granular scales; parietals as long as broad or slightly broader than long; interparietal smaller than the frontoparietals; no occipital. Two large supraoculars, followed by a small band-like shield, the first as long as the second and longer than the space, filled with small scales, between it and the second loreal; usually 4 to 7 superciliaries, first longest; a series of granules between the supraoculars and the superciliaries. Rostral as deep as broad or slightly broader than deep, narrower beneath than above; three nasals, the lower in contact with or separated from the rostral, resting on the 2 or 3 first upper labials; first loreal as long as deep or a little deeper than long, shorter than the second; subocular keeled below the eye and largely bordering the mouth between the 6th and 7th, rarely 5th and 6th or 7th and 8th upper labials. Temporal scales granular, smooth; tympanic shield usually present; no auricular denticulation. Lower eyelid semi-transparent in the middle, covered with small scales.

5 pairs of chin-shields, the 3 anterior in contact in the middle; 21 to 29 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate; no gular fold. Collar straight or feebly curved, without enlarged plates, or with only a few, often disposed irregularly; 11 to 19 scales or plates on its border.

Scales granular, smooth, 45 to 55 across the middle of the body. Ventral plates as long as broad or longer than broad, in 14 or 16 oblique longitudinal and 32 to 36 transverse series. Preanal region covered with small irregular plates, sometimes with an enlarged median plate posteriorly.

Upper surface of arm with smooth roundish-hexagonal scales which are larger than the gulars. Scales on upper surface of tibia similar to the dorsals; lower surface with one row of very large and one of small plates. 16 to 19 femoral pores on each side, the space between the two series $\frac{1}{6}$ to $\frac{1}{4}$ the length of each of them. Subdigital lamellæ in two rows, uni- or tricarinate, 28 to 30 under the fourth toe.

Upper caudal scales oblique, truncate or obtusely pointed, and diagonally keeled, lower, at the base, smooth; 26 to 36 scales in the fourth or fifth whorl behind the postanal granules.

Pale grey or buff above, with 9 dark streaks, as wide as the interspaces, or 11 streaks on the nape, 10 on the middle of the body, and 7 on the posterior part of the body. Tail bluish towards the end.

* Frontonasal longitudinally divided in one of the type specimens.

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Measurements (in millimetres):

	1.	2.	3.	4.
From end of snout to vent	50	52	58	61
„ „ „ fore limb	21	20	23	23
Length of head	13	13	14	14
Width of head	8	8	9	9
Depth of head	6	6	7	7
Fore limb	22	20	22	23
Hind limb	38	32	37	36
Foot	18	17	19	18
Tail	90	85	110	100

1. ♂, Saidabad, type. 2. ♀, Saidabad, type. 3. ♂, Sir-I-Tam, type. 4. ♀, Helmand.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Sir-I-Tam, S.W. of Karman (type)	58	49	14	32	11	29	18–19	27	7–6
♀ „ „ „	43	45	14	33	15	24	16–17	27	5
♂ Saidabad, „ „	50	50	16	33	13	24	16	30	6
♀ „ „ „	52	52	16	34	15	26	19–17	26	6
„ „ „ „	52	50	16	33	13	23	17–16	27	6
„ Kheran	45	55	14	36	12	27	17–16	26	6
„ „	42	54	16	34	16	28	16	28	7–6
♂ Kohak, Perso-Baluch frontier	53	50	14	33	19	21	18–16	25	6–7
♀ Helmand	61	51	16	33	16	26	18	28	6

Habitat.—Southern Persia, Baluchistan, Afghanistan, and neighbouring parts of Russian Turkestan. Also reported from Transcaucasia.

27. EREMIAS VERMICULATA.

Eremias vermiculata, Blanf. Journ. As. Soc. Beng. xliv, 1875, p. 194, and 2nd Yarkand Miss., Rept. p. 18, pl. ii, fig. 5 (1878); Bouleng. Cat. Liz. iii, p. 106 (1887); Bedriaga, Wiss. Res. Przewalski Reis., Amph. Rept. p. 505 (1912); Bouleng. Journ. Zool. Res. iii, 1918, p. 7.

Podarces (Eremias) pylzowi, Strauch, Voy. Przewalski, Rept. p. 28, pl. vi, fig. 1 (1876).

Head and body rather strongly depressed, limbs slender. Head 1½ to 1⅔ times as long as broad, its length 3⅔ to 4 times in length to vent, its depth equal to the distance between the centre of the eye and the tympanum; snout acutely pointed, with feebly swollen nasals, as long as the postocular part of the head; canthus rostralis strong, loreal region concave; a strong concavity on the upper surface of the snout, from the frontonasal to the middle or the posterior extremity of the

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frontal. Pileus twice as long as broad. Neck as broad as the head. Hind limb reaching between the collar and the ear; foot a little longer than the head; toes slender, rather strongly compressed. Tail about twice as long as head and body, flattened at the base, slightly compressed posteriorly.

Upper head-shields flat, smooth; nasals in contact behind the rostral, the suture between them $\frac{2}{5}$ or $\frac{1}{2}$ the length of the frontonasal, which is broader than long; prefrontals a little broader than long, forming a median suture*; frontal shorter than its distance from the end of the snout, $1\frac{2}{3}$ to $1\frac{3}{4}$ times as long as broad, narrow behind, separated from the supraoculars by a series of granular scales; parietals a little longer than broad; interparietal much smaller than the frontoparietals, sometimes very narrow; no occipital. Two large supraoculars, followed by a band-like third, the first as long as the second and longer† than its distance from the second loreal, the space in front of it filled by small shields or granules; 5 to 7 superciliaries, first longest; a series of granules between the supraoculars and the superciliaries. Rostral as deep as broad, narrower beneath than above; 3 nasals, the lower in contact with the 3 first upper labials and separated from the rostral; anterior loreal as long as deep or a little longer than deep, shorter than the second; subocular keeled below the eye and largely bordering the mouth, between the sixth and seventh or fifth and sixth upper labials. Temporal scales granular, smooth; tympanic shield present; no auricular denticulation. Lower eyelid semitransparent in the middle, covered with small scales.

5 pairs of chin-shields, the 3 anterior in contact in the middle; 38 or 39‡ gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate; gular fold distinct. Collar curved, free, composed of 9 to 14 small plates.

Scales granular, smooth, 55 to 68§ across the middle of the body. Ventral plates in 18 or 20 oblique longitudinal and 36 to 38‖ transverse series, the plates mostly longer than broad. Preanal region covered with numerous small plates, a few of the postero-median slightly enlarged.

Upper surface of arm with roundish-rhomboidal smooth scales, which are a little larger than the largest gulars. Upper surface of

* Exceptionally with an azygos shield between them (specimen from Tchu-Tchu).

† Or as long, according to Bedriaga.

‡ 31 to 43, usually 34 to 40, according to Bedriaga.

§ 59 to 71, according to Bedriaga.

‖ 35 to 39, according to Bedriaga.

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tibia with granular scales similar to the dorsals; lower surface with a series of large and one or two of small plates. 20 to 23* femoral pores on each side, the two series narrowly separated in the middle. Subdigital lamellæ single, strongly unicarinate, 24 to 26 under the fourth toe.

Upper caudal scales oblique, truncate, feebly and diagonally keeled; basal subcaudals smooth; 42 to 46 scales in the fourth or fifth whorl behind the postanal granules.

Pale greyish or yellowish above, dotted or vermiculated with black on the head and body, the dots sometimes forming 3 or 5 longitudinal lines on the back and 5 or 7 on the nape; a dark band along the side of the tail. Lower parts white.

Measurements (in millimetres):

	1.	2.
From end of snout to vent	65	64
,, ,, ,, fore limb	25	26
Length of head	18	16
Width of head	11	11
Depth of head	8	8
Fore limb	25	24
Hind limb	41	40
Foot	20	20
Tail	135	122

1. ♂, Ssa Tchu. 2. ♂, Khami Desert.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Khami Desert	64	62	18	38	9	39	22–20	25	6
,, Ssa-Tchu	65	68	20	36	13	39	22–23	26	6
,, Tchu-Tchu, **P.M.**	57	66	18	38	14	38	23	24	6
,, Kutchar Oasis, **P.M.**	51	55	18	36	12	38	21–22	26	5

Habitat.—Chinese Turkestan and Mongolia.

This species has the outer series of scales on the fourth toe forming a slight denticulation, and in other respects also it proves to be the *Eremias* nearest to the Asiatic *Scaptira*.

28. EREMIAS QUADRIFRONS.

Podarces (*Eremias*) *quadrifrons*, Strauch, Voy. Przewalski, Rept. p. 34, pl. iv, fig. 2 (1876).

Eremias quadrifrons, Bouleng. Cat. Liz. iii, p. 105 (1887); Bedriaga,

* 17 to 24, according to Bedriaga.

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Wiss. Res. Przewalski Reis., Amph. Rept. p. 552 (1912); Boulenger, Journ. Zool. Res. iii, 1918, p. 7.

Head and body moderately depressed. Head $1\frac{1}{2}$ times as long as broad, its length 4 times in length to vent; snout pointed, the nasals not swollen, as long as the postocular part of the head; canthus rostralis obtuse; cheeks swollen. Pileus twice as long as broad. Neck a little constricted. Hind limb hardly reaching the axil; foot scarcely longer than the head; toes rather short, not compressed. Tail $1\frac{1}{4}$ times as long as head and body, flattened at the base.

Upper head-shields smooth; nasals in contact behind the rostral, the suture between them $\frac{1}{3}$ the length of the frontonasal, which is broader than long; four prefrontals, outer narrow, band-like, between the frontonasal, the normal prefrontal, and the second loreal; frontal nearly as long as its distance from the end of the snout, $1\frac{2}{3}$ times as long as broad, $\frac{3}{4}$ of its lateral border in contact with the large supraoculars; parietals longer than broad; interparietal much smaller than the frontoparietals; no occipital. Two large supraoculars, preceded by 3 or 4 small shields and followed by a small shield; the first of the two large supraoculars as long as the second and longer than its distance from the second loreal; a series of granules between the supraoculars and the superciliaries. Rostral large, broader than deep; four nasals, the lower being divided, extensively in contact with the rostral, and resting on the first three upper labials; anterior loreal deeper than long, shorter than the second; subocular not reaching the mouth, resting on the 6th to 8th upper labials. Temporal scales hexagonal, smooth, upper very small, lower larger; tympanic shield present; no auricular denticulation. Lower eyelid opaque.

5 pairs of chin-shields, the 3 anterior in contact in the middle; 36 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate; gular fold distinct. Collar curved, free, serrated, composed of 11 plates.

Scales granular, smooth, 54 across the middle of the body. Ventral plates in 16 oblique longitudinal and 30 angular transverse series; these plates mostly longer than broad. Preanal region covered with numerous small plates.

Upper surface of arm with small smooth scales. Scales on upper surface of tibia similar to dorsals an outer series of large shields on the lower surface. 12 or 13 femoral pores on each side, the two series widely separated in the middle.

Scales on upper surface of base of tail smooth or feebly keeled, on lower surface smooth.

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Olive-grey above; head irregularly spotted with black; a light dorsolateral streak, bordered inward by an interrupted black streak and outward by a series of large black ocelli with bluish white centres. Lower parts yellowish white.

Measurements (in millimetres):

From end of snout to vent	62
Length of head	15
Width of head	10·5
Depth of head	8·5
Fore limb	20·5
Hind limb	32·5
Foot	16
Tail	79

The above description is compiled from Strauch's and Bedriaga's accounts of the unique male specimen from the Alashan Desert, Mongolia, preserved in the Petrograd Museum.

A second specimen is preserved in the Basle Museum (F. Müller, Verh. Nat. Ges. Basel, vii, 1885, p. 702).

29. EREMIAS PRZEWALSKII.

Podarces (*Eremias*) *przewalskii*, Strauch, Voy. Przewalski, Rept. p. 43, pl. vii (1876).

Podarces (*Eremias*) *kessleri*, Strauch, op. cit. p. 36, pl. v.

Podarces (*Eremias*) *brachydactyla*, Strauch, op. cit. p. 41, pl. vi.

Eremias przewalskii, Bouleng. Cat. Liz. iii, p. 105 (1887); Bedriaga, Wiss. Res. Przewalski Reis., Amph. Rept. p. 562 (1912); Bouleng. Journ. Zool. Res. iii, 1918, p. 7.

Head and body rather strongly depressed. Head 1½ times as long as broad, its length 3¾ to 4⅖ times in length to vent, its depth equal to the distance between the centre of the eye and the tympanum; snout pointed, with the nasals not or scarcely swollen, as long as the postocular part of the head; canthus rostralis strong, loreal region feebly concave; upper surface of snout and anterior half of frontal with or without a feeble concavity. Pileus twice as long as broad. Neck as broad as the head or a little broader. Hind limb reaching the collar in males, the axil or the shoulder in females; foot as long as the head or a little longer; toes moderately long, not compressed. Tail 1⅓ to 1½ times as long as head and body, more or less flattened at the base, cylindrical or feebly compressed posteriorly.

Upper head-shields flat, smooth; nasals in contact behind the rostral,

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the suture between them $\frac{1}{4}$ to $\frac{2}{3}$ the length of the frontonasal, which is much broader than long; prefrontals as long as broad or longer than broad; frontal shorter than its distance from the end of the snout, $1\frac{2}{3}$ to $1\frac{3}{4}$ times as long as broad, narrow behind, $\frac{3}{4}$ to $\frac{1}{5}$ of its lateral border in contact with the two large supraoculars; parietals as long as broad or a little longer than broad; interparietal as large as the frontoparietals or smaller; no occipital. Two large supraoculars, preceded and followed by a small shield, the first of which may be broken up into very small shields or granules; 6 or 7 superciliaries, first longest; a series of granules between the supraoculars and the superciliaries. Rostral as deep as broad, a little narrower beneath than above; three nasals, rarely four,* the lower in contact with the 2 or 3 anterior upper labials but not reaching the rostral; anterior loreal as long as deep or a little deeper than long, shorter than the second; subocular keeled below the eye, usually resting on the 6th to 8th or 7th to 9th upper labials, rarely wedged in between two labials and reaching the mouth.† Temporal scales granular, smooth, lower larger; tympanic shield present; no auricular denticulation. Lower eyelid opaque, with feebly enlarged scales in the middle.

4 or 5 chin-shields, the 3 anterior in contact in the middle, or 6 or 7, the 4 anterior in contact.‡ 28 to 47 § gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate; gular fold more or less distinct. Collar nearly straight or slightly curved, free, composed of 12 to 17 plates (exceptionally 9), some of which are not or but scarcely larger than the gular scales in front of them.

Scales granular, flat, round, oval, or hexagonal, 54 to 66 ‖ across the middle of the body. Ventral plates mostly as long as broad or longer than broad, in 32 to 37 transverse series, the longest of which contain 18 plates ¶; the longitudinal series irregular or the plates tessellated. Preanal region covered with small irregular plates, a few of the postero-median slightly enlarged.

Upper surface of arm with rhombic smooth scales which are but little larger than the largest gulars. Scales on upper surface of tibia

* The lower nasal is divided in one specimen from the Alashan Desert.

† In one specimen from Khara-Morité and in one from Chinese Turkestan (Paris Museum); in 4 per cent. of the 62 specimens examined by Bedriaga.

‡ Type of *E. kessleri*. One specimen from Khara-Morité.

§ 27 to 45, usually 30 to 41, according to Bedriaga.

‖ Up to 70 according to Bedriaga.

¶ 30 to 37 transverse series with 16 to 20, very rarely 22, plates, according to Bedriaga.

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similar to the dorsals, but smaller; lower surface with 3 or 4 series of subequal shields or with one series of large and two of small shields. 12 to 19* femoral pores on each side, the two series widely separated in the middle. Two series of strongly keeled subdigital lamellæ, 21 to 26 under the fourth toe.

Upper caudal scales narrow, truncate or obtusely pointed, obtusely keeled, or quite smooth on the base of the tail; basal subcaudals smooth; 40 to 46 scales in the fourth or fifth whorl behind the post-anal granules.

Yellowish grey, reddish brown, or orange above, with blackish markings which vary greatly according to individuals. The three principal forms have been described and figured under different names by Strauch:

A. With a dark network: *E. brachydactyla.*

B. With rather large, irregular black spots: *E. kessleri.*

C. The black spots confluent into irregular cross-bars; head with large black spots: *E. przewalskii.*

These three patterns of markings are connected by a number of intermediate types.

Bedriaga further describes specimens with 7 longitudinal series of black and white, more or less ocellar spots, not unlike *E. argus* or *E. arguta*; these specimens may have light longitudinal streaks on the nape and on the temple and the side of the neck, and one on the side of the belly. The young specimens examined by the same author are not streaked, but barred or reticulate.

Lower parts white.

Measurements (in millimetres):

	♂	♀
From end of snout to vent	70	76
,, ,, ,, fore limb	28	27
Length of head	18	17
Width of head	12	11
Depth of head	9	9
Fore limb	27	26
Hind limb	44	40
Foot	22	19
Tail	107	98

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Alashan Desert	70	66	18	32	16	37	16–19	26	8
♀ Tchirgu-Bulyk	76	62	18	37	12	35	15–14	25	7

* 11 to 19, usually 13 to 17, according to Bedriaga.

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	1.	2.	3.	4.	5.	6.	7.	8.	9.
♀ Khara-Morité	75	54	18	35	12	34	12 13	21	6
Hgr. Ordos Desert	48	56	18	33	17	34	13-12	24	7
„ „	48	63	18	35	14	28	16	24	8
♀ Chinese Turkestan, **P.M.** . .	78	56	18	33	9	33	15	23	7

Habitat.—Chinese Turkestan and Mongolia, from Lob Nor to Ordos.

30. EREMIAS MULTIOCELLATA.

Eremias multiocellata, Günth. Ann. & Mag. N. H. (4) x, 1872, p. 419, and in Brenchley, "Curaçoa," Rept. p. 400 (1873); Bouleng. Cat. Liz. iii, p. 103 (1887); Nikolsky, Fedtschenko's Reise, Zool. ii, pt. vii, p. 37 (1899), and Herp. Ross. p. 169 (1905); Bedriaga, Wiss. Res. Przewalski Reis., Amph. Rept. p. 578 (1912); Bouleng. Journ. Zool. Res. iii, 1918, p. 8.

Eremias cæruleo-ocellata (non D. & B.), Anders. Proc. Zool. Soc. 1872, p. 373.

Eremias yarkandensis, Blanf. Journ. As. Soc. Beng. xliv, 1875, p. 194, and 2nd Yarkand Miss., Rept. p. 16, pl. ii, fig. 3 (1878).

Eremias yarkandensis, var. *saturata*, Blanf. ll.cc. fig. 4.

Podarces (*Eremias*) *multiocellata*, Strauch, Voy. Przewalski, Rept. p. 26 (1876).

Podarces (*Eremias*) *planiceps*, Strauch, op. cit. p. 39, pl. iv, fig. 3.

Eremias multiocellata, var. *koslowi*, Bedriaga, Ann. Mus. Zool. St. Pétersb. x, 1907, p. 183, and op. cit. p. 588, pl. viii, fig. 8.

? *Eremias buechneri*, Bedriaga, ll.cc. pp. 184, 600, pl. viii, fig. 1.

Habit rather stout or moderately slender, body moderately depressed. Head more or less depressed, $1\frac{1}{3}$ to $1\frac{2}{3}$ times as long as broad, its length $3\frac{3}{4}$ to 4 times in length to vent in males, 4 to $4\frac{1}{2}$ times in females, its depth equal to the distance between the anterior corner or the centre of the eye and the tympanum; snout pointed, nasals not or scarcely swollen, as long as the postocular part of the head, without or with a very feeble concavity above; canthus rostralis rather obtuse, loreal region feebly concave. Pileus $1\frac{3}{4}$ to 2 times as long as broad. Neck as broad as the head or a little narrower. Hind limb reaching the axil, the shoulder, or the collar in males, the elbow, the axil, or the shoulder in females; foot as long as the head or a little longer ($1\frac{1}{5}$ to $1\frac{1}{4}$ times); toes feebly compressed, rather short or moderately elongate. Tail only a trifle longer than head and body, or nearly twice as long.

Upper head-shields flat, smooth; nasals in contact behind the rostral, the suture between them $\frac{1}{4}$ to $\frac{1}{2}$ the length of the frontonasal,

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which is broader than long*; prefrontals as long as broad or a little longer than broad, forming a median suture, rarely with an azygos shield between them†; frontal as long as or shorter than its distance from the end of the snout, 1½ to 2 times as long as broad, narrow behind; parietals a little longer than broad; interparietal smaller than the frontoparietals. 4 supraoculars, the first small and broken up into 2 to 5 shields or granules, the fourth small and always undivided; in rare cases the second supraocular is in contact with the prefrontal or separated from it by a small granule; 5 to 8 superciliaries, first longest, separated from the supraoculars by one or two series of granules. Rostral as deep as broad or slightly broader; three nasals, the lower in contact with the three (or exceptionally two or four) anterior upper labials and rarely with the rostral; anterior loreal as long as deep or a little longer or a little deeper,‡ shorter than the second; 5 or 6 upper labials anterior to the subocular, which usually borders the mouth, either very narrowly§ or rather broadly. Temporal scales granular, smooth, lower larger; tympanic shield usually present; no auricular denticulation. Lower eyelid opaque, with feebly enlarged scales in the middle.

5 or 6 pairs of chin-shields, the 3 anterior in contact in the middle. 20 to 32, usually 22 to 28, gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate; gular fold feebly marked. Collar feebly curved, free, with 8 to 15 plates, most of which may be very small.

Scales granular, smooth, 45 to 62 across the middle of the body. Ventral plates forming oblique longitudinal series or tessellated, mostly as long as broad, in 28 to 35 transverse series, the longest of which contain 14 or 16, rarely 18, plates. Preanal region with small irregular plates.

Upper surface of arm with smooth rhombic scales which are larger than the largest gulars. Scales on upper surface of tibia similar to dorsals or a little smaller; lower surface with one row of very large and one of small plates, or with 3 series of large plates in front. 9 to 15 (exceptionally 7) femoral pores on each side, the two series widely separated from each other in the middle. Subdigital lamellæ unicarinate, in a single or double series, 20 to 25 under the fourth toe.

* Sometimes divided into two, according to Bedriaga.

† In 4 specimens, including the type.

‡ Absent in a female from Sanja.

§ As in the type. Specimens in which the subocular does not reach the mouth have been described by Strauch (*E. planiceps*), Blanford (var. *saturata*), and Bedriaga.

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Upper caudal scales oblique, truncate, obtusely and diagonally keeled, lower smooth; 32 to 40 scales in the fourth or fifth whorl behind the postanal granules.

The coloration varies greatly, and as the principal types correspond with structural differences, although difficult of definition owing to intermediate specimens, I think it desirable to distinguish the four following forms:

A. The typical form, of rather stout build, with the foot not longer than the head, and the tail but little longer than head and body, well deserves its name, the greyish or brownish upper parts being ornate with numerous whitish black-edged ocellar spots, which are either irregularly distributed or form 6 or 8 longitudinal series; sometimes the spots are enlarged and confluent into transverse bars, interrupted on the vertebral line; the outer ocelli on the body sometimes larger in males, with blue centres; white, dark-edged streaks may be present on the temple and on the nape; lower parts white. Some young with 11 dark streaks along the neck.

B. Var. *yarkandensis*, Blanf. Habit more slender, similar to *E. velox*; head more depressed, snout longer, foot longer, $1\frac{1}{6}$ to $1\frac{1}{4}$ times the length of the head, with more feebly keeled subdigital lamellæ, tail longer. Grey or brown above, with darker dots or small spots which may form regular longitudinal series or be confluent into two dorsal streaks; a more or less distinct light, dark-edged streak, from the superciliary edge, continued as a series of ocelli on the body, these ocelli small or large; in some males a second series of ocelli, with blue centres, on each side, from above the shoulder; sides of throat and belly sometimes with black dots. With 6 exceptions out of 42 cases the subocular borders the lip.

C. Var. *saturata*, Blanf. This form is described by Blanford as much darker in colour and frequently with less distinct ocelli along the side of the back, or these may be absent. The principal difference from the var. *yarkandensis* is that the subocular is divided below the eye and does not reach the mouth,* the lower detached portion forming one or two additional upper labials (7th, 7th and 8th, or 8th and 9th); but in one out of 13 specimens examined by Blanford the subocular borders the mouth.

D. Var. *koslowi*, Bedr. As in the preceding, the subocular does not reach the oral border. Males of robust form, with swollen cheeks. Pale brown above, sometimes greenish, with three dorsal series of blackish dots more or less confluent into streaks; sides with blue, black-edged ocelli; tail red; some green and red on the throat.

* As is also the case in one of the specimens of the typical form from Sanja.

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Females darker brown, with the dark dots less distinct or absent, or replaced by 3 or 4 whitish streaks; three series of ocellar spots on the sides, the lower with pale blue centres, the others with white centres. These notes are taken from Bedriaga's description.

Measurements (in millimetres):

	F. typica.				Var. *yarkandensis.*			Var. *saturata.*	
	1.	2.	3.	4.	5.	6.	7.	8.	9.
From end of snout to vent .	66	68	63	58	55	53	56	55	51
„ „ „ fore limb	26	26	22	21	22	19	23	22	20
Length of head . . .	17	18	14	14	14	12	15	15	12
Width of head	13	12	9	9	9	8	9	10	8
Depth of head	10	10	8	8	7	6	7	7	6
Fore limb	25	24	20	20	21	18	21	21	17
Hind limb	36	33	28	30	31	27	31	31	25
Foot	17	17	14	15	17	14	17	16	13
Tail	—	82	69	62	105	78	—	88	75

1. ♂, Near Aksu. 2. ♂, Tian Shan Mts. 3. ♀, Tian Shan Mts. 4. ♀, type, Gobi Desert. 5. ♂, Kashgar. 6. ♀, Kashgar. 7. ♂, Alashan Desert. 8. ♂, Kuenluen Valleys. 9. ♀, Kuenluen Valleys.

Particulars of Specimens Examined.

Forma typica.	1.	2.	3.	4.	5.	6.	7.	8.	9.
♀ Gobi Desert, Mongolia (type) .	60	55	14	32	11	27	11	20	6
♂ Tian Shan Mts., Chinese Turkestan	68	57	14	29	9	22	12	20	5
„ „ „ .	52	47	16	28	10	23	11	20	5
♀ „ „ .	63	50	14	32	12	20	12–13	21	6
„ „ „ .	54	52	14	30	12	22	13	22	6
♂ Aksu	66	56	16	32	14	28	10–11	23	6
Var. *yarkandensis.*									
♂ Yarkand, Chinese Turkestan (type)	55	52	16	29	9	26	15–13	24	6
♀ „ „ „ .	54	55	16	33	10	30	13–14	23	6
„ „ „ „ .	46	59	14	31	9	25	13	25	6
♂ Sarikol, „ „ .	56	51	16	29	9	26	12	22	6
„ „ „ „ .	54	54	16	29	10	24	11–12	23	6
♀ Sanju, „ „ .	50	48	16	31	8	25	10	20	6
„ „ „ „ .	45	50	16	32	10	30	13–12	20	7
„ Kashgar, „ „ .	55	56	16	30	9	28	14–13	23	6
♂ „ „ . .	60	57	14	32	11	32	14	21	6–5
„ „ „ . .	55	53	14	32	10	26	12–13	25	6
„ „ „ . .	52	55	14	32	15	28	12	23	6
♀ „ „ . .	62	53	14	30	9	24	12	25	6
„ „ „ . .	55	53	14	30	13	26	11–12	24	6–5
„ „ „ . .	55	58	16	33	12	25	14	25	6

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	1.	2.	3.	4.	5.	6.	7.	8.	9.
♀ Kashgar, Chinese Turkestan .	53	59	14	32	8	30	10–9	24	6
„ „ „ **P.M.**	55	58	14	33	11	28	13	23	6
♂ Chinese Turkestan, **P.M.** . .	59	47	16	33	11	27	11	21	6
„ „ „ . .	59	54	16	31	13	26	12 13	23	7
„ „ „ . .	54	54	18	33	16	34	11 12	22	7 6
♀ „ „ . .	57	45	18	33	12	24	11–12	20	6
„ „ „ . .	54	53	18	35	12	29	12–11	22	7
♀ Alashan Desert, Mongolia . .	56	47	14	33	9	27	10	21	6
Var. *saturata.*									
♂ Kuenluen Valleys, S. of Yarkand (type)	55	56	16	32	11	27	11	23	9–7
„ „ „ „	50	49	18	30	10	26	11	21	7
♀ „ „ „	51	50	16	31	10	23	10 7	21	8
„ Kutchar Oasis, **P.M.** . . .	67	55	16	34	11	23	12–11	21	7–6
„ „ „ . . .	67	62	16	31	12	26	13–12	24	7

Habitat.—The type is from between Sume and the Tola River, Gobi Desert of Mongolia, and the species has since been rediscovered in other parts of Mongolia, as far south as the Alashan Desert, and appears to be extensively distributed in Chinese Turkestan (Tian Shan, Kashgar, Yarkand, Sarikol, etc.). It is also recorded from Repetek in Transcaspia by Elpatjewsky and Sabanejev, Zool. Jahrb., Syst. xxiv, 1906, p. 252.

I am rather embarrassed how to deal with *Eremias buechneri*, Bedr. A specimen from the Alashan Desert, received under that name from the Petrograd Museum in 1899,* although agreeing fairly well in form and markings with Bedriaga's figure, has the rostral as broad as deep and the nasals scarcely swollen, and cannot be separated from *E. multiocellata*, var. *yarkandensis*. Not having had access to Bedriaga's material, I cannot do better than give a translation of his diagnosis, and leave to the future to decide whether I am justified in placing *E. buechneri* in the synonymy of *E. multiocellata*. It is, however, possible that the specimens with strongly swollen nasals belong to a distinct species.

Eremias buechneri. Total length 163 millim. Habit slender and elongate (♀) or more sturdy (♂). Head pyramidal or platycephal; snout long, pointed, rounded at the end; limbs short and robust; tail thick, less than $\frac{2}{3}$ of the total length. No occipital; parietals longer than broad; frontoparietals longer than broad; no scales between the second and third supraoculars; frontal shorter or longer than, or as long as the transverse axis of the frontoparietals; no scales between

* The Alashan specimens appear to have been referred since to *E. multiocellata*.

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the frontal and the supraoculars; suture between the frontal and the first supraocular longer than the anterior part of the outer border of the frontal bordering the prepalpebral space; prepalpebral space shorter than the first supraocular and usually longer than the lower border of the rostral, rarely of the same length; suture between the frontal and the prefrontal twice as long as the lower border of the rostral; no accessory, lateral frontonasals; interfrontonasal sometimes present; internasal only exceptionally divided into two, usually twice or more than twice as long as the lower border of the rostral; supranasal in contact with the first supralabial; rostral small, strongly narrowed beneath, its greatest width less than the distance from the middle of its lower border to the nostril and considerably shorter than the distance from the anterior superciliary to the postnasal, and sometimes even twice as long, its lower border shorter than its vertical diameter; nasals often strongly swollen.* Nostrils lateral. Infranasal single, in contact with the three anterior upper labials; upper border of the second upper labial not reaching the anterior border of the nasal pit, or reaching it or sometimes beyond; subocular reaching the labial border or not; three anterior pairs of submaxillaries forming a suture. Temporal scales small and numerous. 25 to 29† small gular scales in a longitudinal series from the submaxillary angle to the middle of the collar. Ventral shields in oblique series running backward and inward; the longest transverse series consisting of 16 to 18, exceptionally 14, plates. Femoral pores 9 to 15 on each side. Space between the anterior femoral pores on the preanal region at least half as long as the series of pores, sometimes as long or even somewhat longer than the series. Back pale yellowish or greenish grey, sometimes green, almost unspotted or dotted with darker; sides of body with more or less distinctly defined light, dark-edged round spots on dark bands; upper surface of head unspotted; lower surface whitish or yellowish white.—Habitat: Chinese Turkestan (Yarkand and Chotan districts). The Kashgar district is added in the original description.

31. EREMIAS PLESKEI.

Eremias pleskei, Bedriaga, Ann. Mus. Zool. St. Pétersb. x, 1907, p. 238, and Wiss. Res. Przewalski Reis., Amph. Rept. pp. 531, 758 (1912); Bouleng. Journ. Zool. Res. iii, 1918, p. 7.

* "In zahlreichen Fällen" according to the original description.

† 39, in the diagnosis, must be a misprint for 29, as the original description states "zwischen 25 und 29."

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Habit rather slender, as in *E. velox*. Head moderately depressed; snout rather pointed; nasals not or but feebly swollen. Tail a little more than twice the length of head and body.

Upper head-shields smooth; nasals in contact behind the rostral; frontal in contact with the supraoculars; parietals as long as broad; no occipital; two large supraoculars, bordered by granules in front and behind, and a small third; first supraocular longer than its distance from the posterior loreal. Rostral moderately large; lower nasal in contact with the 2 or 3 anterior upper labials; subocular bordering the mouth; temporal scales moderate or small.

3 anterior pairs of chin-shields in contact in the middle; 25 to 29 gular scales in a median longitudinal series.

Ventral plates in 16 or 18 oblique longitudinal series.

15 to 17 femoral pores on each side, the space between the two series 2 to $2\frac{1}{2}$ times in the length of each.

Pale brown above, with 4 or 5 light longitudinal streaks; limbs with light ocellar spots; lower parts yellowish white.

Total length 140 millimetres.

Habitat.—Nachitschewan, Erivan Government, Transcaucasia.

This species has been briefly described from two specimens preserved in the Petrograd Museum, which have since been identified by Nikolsky with *E. fasciata*, Blanf. The wide separation between the two series of femoral pores appears, however, sufficient reason for provisionally maintaining *E. pleskii* as distinct.

32. EREMIAS INTERMEDIA.

Podarces (*Eremias*) *intermedia*, Strauch, Voy. Przewalski, Rept. p. 28 (1876).

Eremias intermedia, Bouleng. Cat. Liz. iii, p. 100 (1887); Boettg. Zool. Jahrb. iii, 1888, p. 908; Nikolsky, Fedtschenko's Reise, Zool. ii, pt. vii, p. 36 (1899), and Herp. Ross. p. 157 (1905); Bedriaga, Wiss. Res. Przewalski Reis., Amph. Rept. p. 613, pl. viii, fig. 3 (1912); Tzarewsky, Trav. Soc. Nat. Petrogr. xliii, 4, 1914, p. 32; Bouleng. Journ. Zool. Res. iii, 1918, p. 8.

Eremias transcaspica, Nikolsky, Herp. Ross. p. 482; Elpatjewsky & Sabanejev, Zool. Jahrb., Syst. xxiv, 1906, p. 253.

Eremias nigrocellata, Nikolsky, Ann. Mus. Zool. St. Pétersb. i, 1896, p. 371, and ii, 1897, p. 21, pl. xviii, fig. 2.

Eremias intermedia, var. *nigrocellata*, Nikolsky, op. cit. iv, 1899, p. 399.

Eremias intermedia, var. *oxyrrhina*, Bedriaga, op. cit. pl. viii, fig. 5.

Habit more or less stout, body more or less depressed. Head rather

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feebly depressed, $1\frac{1}{3}$ to $1\frac{1}{2}$ times as long as broad, its length $3\frac{2}{3}$ to 4 times in length to vent, its depth equal to the distance between the anterior corner of the eye and the tympanum; cheeks sometimes swollen; snout pointed, with the nasals strongly swollen, as long as the postocular part of the head, with a more or less distinct concavity above, extending to the middle of the frontal shield; canthus rostralis obtuse, loreal region feebly concave. Pileus $1\frac{3}{4}$ to 2 times as long as broad. Neck as broad as the head. Hind limb reaching the shoulder, the collar, or between the collar and the ear in males, the axil or the shoulder in females; foot slightly longer than the head; toes short or rather short, feebly compressed. Tail $1\frac{1}{5}$ to $1\frac{2}{3}$ times as long as head and body, much flattened at the base, compressed towards the end.

Upper head-shields convex, smooth; nasals in contact behind the rostral, the suture between them $\frac{1}{4}$ to $\frac{1}{2}$ the length of the frontonasal, which is broader than long; prefrontals as long as broad or a little longer than broad, forming a median suture*; frontal shorter than its distance from the end of the mouth, $1\frac{2}{3}$ to $1\frac{3}{4}$ times as long as broad, narrow behind, $\frac{2}{3}$ to $\frac{3}{4}$ of its lateral border in contact with the supraoculars, unless separated by a series of granules; parietals as long as broad or slightly broader than long; interparietal much smaller than the frontoparietals; normally no occipital.† Two large supraoculars, preceded and followed by small shields or granules, the first usually shorter than the second and a little longer than its distance from the second loreal; 6 or 7, rarely 8, superciliaries, first longest, separated from the supraoculars by one or two series of granules; sometimes‡ a complete series of granules borders the supraoculars on the inner side. Rostral as deep as broad or slightly deeper than broad, narrower beneath than above; 3 nasals, the lower in contact with the two or three anterior upper labials but not reaching the rostral; anterior loreal as long as deep or deeper than long, shorter than the second; subocular keeled below the eye, resting on the 5th to 7th, 6th to 8th, or 7th to 9th upper labials. Temporal scales granular, smooth, lower larger; tympanic shield present; no auricular denticulation. Lower eyelid opaque, with feebly enlarged scales in the middle.

5 pairs of chin-shields, the 3 anterior in contact in the middle.

* A very small shield between them in a male from Perewalnaja.

† A small but very distinct occipital, widely separated from the interparietal, in a female from Perewalnaja.

‡ In 2 specimens from Bal Kuju, in 2 from Perewalnaja, and in single specimens from Kizil Kum, Askhabad, and Tedshen.—Such specimens have been named *E. transcaspica* by Nikolsky.

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29 to 32* gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate; gular fold rather indistinct or absent. Collar feebly curved, free, composed of 10 to 15† plates, which may be very small.

Scales granular, smooth, 49 to 61 across the middle of the body. Ventral plates tessellated, mostly longer than broad, in 29 to 32‡ transverse series, the longest of which contains 16 or 18 plates. Preanal region covered with small irregular plates.

Upper surface of arm with smooth rhombic scales, which are larger than the largest gulars. Scales on upper surface of tibia similar to dorsals; lower surface with 1 series of large and 1 or 2 of small shields, or with 3 series of large shields in front and 2 behind. 12 to 17§ femoral pores on each side, the two series widely separated in the middle.‖ Subdigital lamellæ unicarinate, in one or two series, 20 to 23 under the fourth toe.

Upper caudal scales oblique, rounded or obtusely pointed posteriorly, obtusely keeled, lower smooth at the base of the tail; 30 to 40 scales in the fourth or fifth whorl behind the postanal granules.

Grey or yellowish grey above, speckled with blackish, or with numerous blackish and whitish spots, or with 8 or 10 longitudinal series of white, black-edged ocellar spots quite similar to those of most specimens of *E. arguta*; limbs with ocellar spots. Lower parts white.

Measurements (in millimetres):

	1.	2.	3.	4.
From end of snout to vent . .	66	61	57	53
„ „ „ fore limb .	24	23	21	20
Length of head	16	16	14	13
Width of head	12	11	10	9
Depth of head	9	8	8	7
Fore limb	22	22	20	19
Hind limb	36	37	32	30
Foot	17	18	15	15
Tail	—	97	—	66

1. ♂, Feizabad Mondechi (type of *E. nigrocellata*). 2. ♂, Perewalnaja. 3. ♀, Perewalnaja. 4. ♀, Kizil Kum (type).

* 25 to 36, according to Bedriaga.

† 9 to 16, according to Bedriaga.

‡ 28 to 33, according to Bedriaga.

§ 10 to 15, according to Bedriaga.

‖ Except in one male from Askhabad in which the space between the two series of pores is only ¼ the length of each.

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Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♀ Kizil Kum, Aralo-Caspian Desert (type)	53	55	16	30	10	32	13	20	7
„ „ „ P.M.	46	52	16	29	15	29	15	20	7
♂ Perewalnaja, Transcaspia . .	60	53	18	30	13	31	15–16	22	7
♀ „ „ . .	58	52	18	29	12	31	14–13	21	7–8
„ „ „ . .	55	51	18	31	10	30	13	23	7–6
♂ Tedshen „ . .	56	49	16	29	11	29	13–12	22	7
„ Askhabad „ . .	50	50	18	29	15	30	16–17	22	8–7
„ Bal-Kuju, near Askhabad . .	60	55	18	30	15	29	15–14	23	7
„ „ „ . .	49	51	16	30	13	29	15	22	8–7
„ Feizabad-Mondechi, E. Persia (type of *E. nigrocellata*) . .	66	61	18	32	10	29	13	21	7

Habitat.—The types are from the Aralo-Caspian Desert, but this species is also known to occur in Transcaspia, Turkestan (near L. Balkash), and Northern and Eastern Persia (Astrabad, Seistan, Feizabad-Mondechi).

E. intermedia connects *E. multiocellata* with *E. arguta*.

33. EREMIAS ARGUS.

Eremias argus, Peters, Mon. Berl. Ac. 1869, p. 61, pl. —, fig. 3; Steind. Sitzb. Ak. Wien, lxii, i, 1870, p. 336, pl. ii, figs. 1, 2; Bouleng. Cat. Liz. iii, p. 102 (1887); Boettg. Ber. Offenb. Ver. Nat. 1888, p. 63; Werner, Abh. Bayer. Ak. xxii, 1904, p. 354; Nikolsky, Herp. Ross. p. 167 (1905); Elpatjewsky & Sabanejev, Zool. Jahrb., Syst. xxiv, 1906, p. 253; Stejneg. Herp. Japan, p. 248, figs. (1907); Bedriaga, Wiss. Res. Przewalski Reis., Amph. Rept. p. 636 (1912); Bouleng. Journ. Zool. Res. iii, 1918, p. 8.

Eremias brenchleyi, Günth. Ann. & Mag. N. H. (4) ix, 1872, p. 419, and in Brenchley, "Curaçoa," p. 306, pl. xxii, fig. A (1873); J. G. Fischer, Jahrb. Hamb. Wiss. Anst. v, 1888, p. 46, pl. iv, fig. 9; Méhely, in Zichy, Zool. Ergebn. 3. Asiat. Forschungsr. ii, p. 56 (1901); Elpatjewsky & Sabanejev, t.c. p. 252; Bedriaga, op. cit. p. 648.

Podarces (Eremias) argus, Strauch, Voy. Przewalski, Rept. p. 32 (1876).

Podarces (Eremias) brenchleyi, Strauch, op. cit. p. 30.

Eremias argus, var. *brenchleyi*, Boettg. l.c.; Bouleng. Journ. Zool. Res. iii, 1918, p. 10.

Body feebly depressed. Head convex, not much broader than deep, $1\frac{1}{3}$ to $1\frac{1}{2}$ times as long as broad, its length $3\frac{1}{2}$ to $4\frac{1}{3}$ times

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in length to vent; snout obtuse or obtusely pointed, nasals feebly swollen, as long as or a little shorter than the postocular part of the head, with a more or less distinct median concavity above, extending to the middle of the frontal shield: canthus rostralis obtuse, loreal region not or but feebly concave. Pileus $1\frac{2}{3}$ to $1\frac{4}{5}$ times as long as broad. Neck as broad as the head. Hind limb reaching the wrist, the elbow, or the axil, rarely the shoulder, in females, the axil, the shoulder, or the collar in males: foot as long as the head or a little longer; toes rather short, not compressed. Tail 1 to $1\frac{3}{4}$ times the length of head and body, sometimes feebly compressed posteriorly.

Upper head-shields flat or rather convex, smooth: nasals in contact behind the rostral, the suture between them $\frac{1}{2}$ to $\frac{2}{3}$ the length of the frontonasal, rarely equal to it: frontonasal longitudinally divided,* at least twice as broad as long: prefrontals as long as or longer than broad, usually with one or two small shields between them, rarely three in a longitudinal series or forming a triangle†: frontal as long as or a little shorter than its distance from the end of the snout, $1\frac{1}{3}$ to $1\frac{2}{3}$ times as long as broad, $\frac{1}{4}$ to $\frac{1}{3}$ of its lateral border in contact with the supraoculars, or, rarely, separated from them by a series of small scales: parietals as long as broad or broader than long; interparietal usually smaller than the frontoparietals: no occipital. Two large supraoculars, first usually shorter than second and as long as or shorter than its distance from the second loreal: usually a third small supraocular, often band-like: 4 to 6, rarely 3, superciliaries, first longest: one or two series of granular scales between the supraoculars and the superciliaries. Rostral usually $1\frac{1}{4}$ to $1\frac{1}{3}$ times as broad as deep, rarely as deep as broad; three nasals,‡ the lower either just reaching the rostral or more or less extensively separated from it,§ and in contact with the first and second upper labials; anterior loreal deeper than long, much shorter than the second; 6 or 7, rarely 5, exceptionally 4, upper labials to below the centre of the eye: subocular keeled below the eye, usually not reaching the mouth, resting on the 5th to 7th, 5th to 8th, 6th to 8th, or 6th to 9th upper labials, rarely ‖ bordering the

* Stejneger mentions a specimen from Eastern Mongolia in which there is only a very small, single frontonasal and a pair of very long prefrontals.

† Out of 69 specimens examined, the median shield is absent in 7, one is present in 34, two in 25, and three in 3.

‡ Lower nasal exceptionally divided, according to Bedriaga.

§ The upper nasal sometimes largely in contact with the first upper labial, the arrangement of the three shields being exactly as in *Nucras*.

‖ One specimen from Pekin and one from Aisun. Bedriaga also mentions such an exceptional specimen. The specimen from Pekin is one of two

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mouth between the 5th and 6th upper labials. 2 or 3 small upper temporal shields sometimes present; temporal scales granular, smooth, lower much larger; a tympanic shield usually present; no auricular denticulation. Lower eyelid opaque, with feebly enlarged scales in the middle. 5, rarely 4, pairs of chin-shields, exceptionally 4 on one side and 5 on the other, the three anterior in contact in the middle; 17 to 29 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate; gular fold distinct. Collar feebly curved, free, composed of 7 to 12 rather large plates.

Scales granular and smooth, larger, flat and often squarish on the sides towards the ventrals, 46 to 62 across the middle of the body, usually 49 to 61. Ventral plates not forming regular longitudinal series, tessellated, mostly as long as broad, some broader than long, in 28 to 33 more or less angular transverse series, the longest of which contain 12 or 14 plates, usually 14. Preanal region covered with numerous small, irregular plates.

Upper surface of arm with rather large, smooth, hexagonal or rhombic scales. Scales on upper surface of tibia similar to dorsals or a little smaller; lower surface with one row of very large and one of small plates. 8 to 12 femoral pores on each side, the two series widely separated from each other in the middle. Subdigital lamellæ 19 to 24 under the fourth toe, unicarinate, a second keel being formed by the outer lateral series of scales.

Upper caudal scales more or less oblique and diagonally keeled, the scales small in the middle on the basal part, the scales on the lower surface of which are smooth; 26 to 46 scales in the fourth or fifth whorl behind the postanal granules.

The young are grey or olive above, with 3 or 4 white, black-edged streaks on each side of the neck, the uppermost from the superciliary edge, the second from the lower eyelid, passing above the tympanum, the third from the upper lip, through the tympanum, the fourth, if present, from the lower lip to the forearm; in addition, two dorsal series of round white, black-edged ocelli. On the body the upper or dorsolateral streak as well as the third may be broken up into ocellar spots, whilst the second is always represented by a series of ocelli similar to the dorsals. These markings may persist in the adult, or the streaks may disappear and be replaced by 6 or 8, rarely 10, series of spots, which may be incompletely surrounded by dark brown rings, or transversely connected by large dark brown

received by the Genoa Museum, both agreeing in this respect. I have also examined in the Paris Museum an ocellated young from Mongolia (David Collection) in which the subocular borders the mouth.

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spots; sometimes the vertebral line is lighter than the rest of the ground-colour, which varies from buff to grey. There are also specimens without ocelli. Thus, a female from Chefoo has only two more or less interrupted whitish streaks on each side, bordered by larger dark brown spots, and a male from the same locality resembles very closely the type of *E. brenchleyi* in its coloration, a continuous white streak extending from below the eye to the groin, edged above by a dark brown band, which is continued on the tail; a second (dorsolateral) white streak above, continuous on the neck, broken up into ocellar spots on the body. Other specimens are intermediate between these striated examples and the more frequent type with nothing but ocelli. Lower parts white.

Measurements (in millimetres):

	1.	2.	3.	4.	5.
From end of snout to vent	57	55	54	62	56
„ „ „ fore limb	23	20	21	22	19
Length of head	15	13	14	13	12
Width of head	10	9	10	9·5	8
Depth of head	9	7·5	8	8	6·5
Fore limb	22	19	20	21	20
Hind limb	31	26	29	31	30
Foot	17	14	16	15	15
Tail	85	57	85	73	84

1. ♂, Chefoo. 2. ♀, Chefoo. 3. ♂, Wei Hai Wei. 4. ♀, N. China. 5. ♀ (var. *brenchleyi*), Mongolia (Paris Museum).

The sexes are difficult to recognize externally in this species. The males have a larger head and a rather shorter body, but the tail is not or but scarcely swollen at the base and the femoral pores are not larger than in the females.

Habitat.—Manchuria, Corea, Mongolia, Northern China.

Var. BRENCHLEYI, Günther.

Only about a dozen specimens of this form are known to exist in collections, and it is therefore difficult to decide whether it should rank as a variety of *E. argus* or as a distinct species. Considering the characters which have been adduced in favour of its specific distinction as either too slight or as occurring also in annectant specimens of *E. argus*, I prefer, for the present, to treat it as a variety.

The latest definition is that given by Bedriaga (l.c.), and is here repeated, the structural characters from his synopsis (p. 505), the coloration from his diagnoses (pp. 645 and 655):—

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E. argus. Subocular not reaching the labial margin; frontal shorter than or as long as the greatest width of the two frontoparietals; tail short, at most $1\frac{1}{2}$ times as long as head and body. Brown above, with numerous oblong oval light ocellar spots in longitudinal series, mostly incompletely surrounded with dark brown and transversely connected by dark brown spots.

E. brenchleyi. Subocular reaching the labial margin; frontal longer than the greatest width of the two frontoparietals; tail long, more than $1\frac{1}{2}$ times head and body. Dorsal region with or without dark spots, sides with two series of light ocelli, of which the lower is replaced by a light streak.

Although fulfilling its purpose in most cases, this comparative definition may be misleading in others. Bedriaga has himself stated in his detailed description that one of the specimens of *E. argus* in the Petrograd Museum has the subocular as in *E. brenchleyi*, for which reason Strauch had previously referred it to the latter. There are other exceptions: two specimens from Pekin and Aisun, in the British Museum, and, I believe, others in the Genoa Museum, combine the subocular of *E. brenchleyi* with the ocellated back of *E. argus*.* I have come across several specimens† of *E. argus* in which the length of the frontal is greater than the width of the frontoparietals.

The tail in the type of *E. brenchleyi* is not quite $1\frac{1}{2}$ times the length of head and body, whilst it may be $1\frac{3}{5}$ times in *E. argus*. Bedriaga mentions, it is true, specimens of the former with the tail nearly twice as long as head and body, a length greater than in any of the specimens I have been able to examine; but the fact nevertheless remains that the wording of his definition would be misleading as regards the British Museum collection. In examining the coloration of a large number of *E. argus*, I have noticed exceptional examples, from Chefoo, which would fall under the definition of *E. brenchleyi*.

Having disposed of these characters, I will pass on to two others which have been pointed out by Bedriaga in his full descriptions. First, the head of *E. brenchleyi* is more flattened, with the snout more pointed. This is true generally speaking, but some *E. argus* have the snout less obtuse than others, and the convexity of the head is also subject to some variation, the extremes between the two supposed species being no greater than between individuals united by me under *Lacerta taurica*; the comparison with *L. agilis* and *L. muralis* is an exaggeration for which Boettger is responsible. I may add that there

* These specimens have 53 and 61 scales across the body respectively.

† 5 from Chefoo, 3 from Pekin, 2 from Chih Feng, 1 from N. China, 1 from N.E. Mongolia.

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is no difference in shape of the head between young specimens from Pekin, 35 millim. long without the tail, referable to the two forms. The second and more important character resides in the larger dorsal scales, there being 39 to 46 across the middle of the body in *E. brenchleyi*, and 46 to 62 in *E. argus*: there is thus an overlap, which would probably be greater if more specimens of the former could be examined. In all other respects the two forms agree, the further differences pointed out by J. G. Fischer being merely individual.

Apart from the character of the subocular, the var. *brenchleyi* may be defined as combining a usually lower number of scales across the body, a somewhat flatter head with a more pointed snout, a usually longer tail, and the presence of a dark lateral band edged above by a series of ocellar spots and below by an interrupted white streak.

Habitat.—Mongolia and Northern China.

Particulars of Specimens Examined.

Forma typica.	1.	2.	3.	4.	5.	6.	7.	8.	9.
♀ Manchuria	54	62	14	32	9	23	11	21	6
,, N.E. Mongolia	59	54	12	31	12	18	8	20	6–5
,, ,,	56	46	14	32	11	20	9	22	6
♂ Chih Feng, N.E. Chihili	54	57	14	31	10	21	9	22	6
,, ,, ,,	52	51	12	28	12	20	9–10	21	7
,, ,, ,,	49	49	14	31	9	24	9–10	22	6
♀ ,, ,,	55	54	14	32	9	29	10–9	22	7–6
,, ,, ,,	53	57	14	31	9	20	10–9	20	6
,, ,, ,,	53	53	14	29	10	22	8	24	6
,, ,, ,,	45	52	14	32	10	28	10	22	7–6
,, ,, ,,	42	55	12	30	10	26	10	20	6
,, ,, ,,	42	54	14	33	9	22	9–10	20	6
♂ Wei-Hai-Wei, Shantung	54	60	14	31	8	22	11	23	7
♀ ,, ,,	55	57	14	30	7	20	11–10	21	6
,, ,, ,,	47	58	14	30	8	17	10	21	6
♂ Pekin (Swinhoe)	54	59	14	29	7	24	11–10	21	6–7
,, ,, ,,	50	54	12	29	9	19	10	22	6
♀ ,, ,,	48	48	14	28	9	21	9	19	6
,, ,, (Brenchley)	56	60	14	31	12	26	8–9	24	6
,, ,, ,,	54	52	14	30	9	22	11–12	23	6
,, ,, (Doria)	51	53	14	32	9	22	10–11	21	5
♂ ,, (C. de Plancy)	57	55	12	29	11	23	9	21	6–7
,, ,, ,,	56	57	14	29	10	23	11–10	21	6–7
,, ,, ,,	55	59	14	30	10	20	11	23	7
,, ,, ,,	47	51	14	30	10	20	9–10	24	7–6
♀ ,, ,,	56	60	12	31	10	20	8	20	6
,, ,, ,,	52	50	14	31	11	23	10	23	7
,, ,, ,,	45	59	14	32	11	22	10	23	7

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	1.	2.	3.	4.	5.	6.	7.	8.	9.
♀ Pekin (David)	58	51	14	32	9	18	9	24	6
„ „ „	56	54	12	32	9	18	10	21	7
„ „ „	52	49	14	28	8	17	9	22	6
„ „ „	52	47	14	31	10	18	10	21	5
„ „ „	50	51	14	28	8	17	9	23	6
„ „ „	50	49	14	30	7	19	12–11	22	7–6
♂ Chefoo (Swinhoe)	56	49	14	30	8	19	10–9	20	6
„ „ „	53	52	14	28	9	20	10	21	6
♀ „ „	55	50	14	29	8	17	8	20	6–5
„ „ „	54	57	14	32	8	26	11–10	20	6
„ „ „	52	54	14	30	11	17	9	20	6
♂ „ (Anderson)	56	52	14	30	8	22	12–10	21	6–7
„ „ „	54	57	14	29	10	22	11–10	19	7–6
„ „ „	53	53	14	28	9	18	10	21	6
♀ „ „	57	54	14	32	10	21	10–9	21	6
„ „ „	55	53	14	28	9	20	8	20	6–4
„ „ „	50	53	14	30	12	24	10	22	6–7
„ „ „	47	61	14	30	8	19	11–10	20	6
„ „ „	47	56	14	29	8	22	8–9	22	6
„ „ „	45	57	14	30	9	20	11	22	6–7
„ „ „	37	55	14	31	9	18	11–10	22	7–6
„ „ „	37	54	14	29	11	19	10	22	6
♂ Aisun, S. of Chefoo	58	60	14	30	9	19	9	23	6–7
„ „ „	58	54	14	31	11	20	10	20	6
„ „ „	56	57	14	30	9	28	10–11	20	6
♀ „ „	56	60	14	33	11	23	11–10	23	6
„ „ „	56	61	14	31	11	20	9–10	21	5
„ „ „	56	60	14	32	8	25	9–8	23	6
„ „ „	47	61	14	31	9	23	11–12	22	6
„ N. China	62	55	14	30	9	23	10	21	7
„ „	55	50	14	30	9	24	10	22	7–6
„ „	47	55	14	30	10	18	12–11	23	6
Var. *brenchleyi*.									
♀ Land of Grass, Mongolia (type)	52	42	14	30	9	19	10–11	20	6
„ Mongolia, **P.M.**	56	41	14	30	7	18	11–10	21	5
„ Chikiang	40	44	14	31	9	20	10–11	20	5–6
Yg. Pekin	35	39	14	28	10	20	10	20	5

34. EREMIAS ARGUTA.

Lacerta arguta, Pallas, Reise Russ. R. ii, p. 718 (1771); Daud. Hist. Rept. iii, p. 240 (1802).

Lacerta variabilis, Pallas, Zoogr. Ross.-As. iii, p. 31 (1811); Lichtenst. in Eversm. Reise Orenb. Buch. p. 140 (1823); Eversm. N. Mém. Soc. Nat. Mosc. iii, 1834, p. 351, pl. xxix.

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Lacerta leucosticta, Lichtenst. op. cit. p. 142.

Podarcis variabilis, Ménétr. Cat. Rais. p. 62 (1832); Schreib. Herp. Eur. p. 380 (1875).

Podarcis irritans, Ménétr. l.c.

Lacerta deserti, Andrzej. N. Mém. Soc. Nat. Mosc. ii, 1832, p. 324.

Eremias variabilis, Wiegm. Herp. Mex. p. 9 (1834); Dum. & Bibr. Erp. Gén. v, p. 292 (1839); Démidoff, Voy. Russ. Mér. iii, p. 339, Rept. pl. i, figs. 3, 4 (1840); A. Smith, Ill. Zool. S. Afr., Rept. pl. xlviii, fig. 2 (1845).

Podarcis deserti, Eichw. Faun. Casp.-Cauc. p. 77 (1841).

Eremias arguta, Gray, Cat. Liz. p. 39 (1845); Kessler, Tr. St. Petersb. Nat. Soc. viii, 1878, p. 170; Boettg. in Radde, Faun. Flor. Casp.-Geb. p. 54 (1886); Boulenger, Cat. Liz. iii, p. 101 (1887); Nikolsky, Fedtschenko's Reise. Zool. ii, pt. vii, p. 36 (1899); Kiritzescu, Bul. Soc. Sc. Buchar. x, 1901, p. 315; Elpatiebski, Amph. Rept. Aral Exped. p. 18, pl. ii (1903); Nikolsky, Herp. Ross. p. 158 (1905); Bedriaga, Wiss. Res. Przewalski Reis., Amph. Rept. p. 624 (1912); Schreib. Herp. Eur., Ed. 2, p. 344 (1912); Nikolsky, Herp. Caucas. p. 101 (1913); Boulenger, Journ. Zool. Res. iii, 1918, p. 8.

Podarces (*Eremias*) *arguta*, Strauch, Voy. Przewalski, Rept. p. 27 (1876).

Eremias arguta, var. *potanini*, Bedriaga, op. cit. p. 631.

Habit stout, body feebly depressed. Head feebly depressed, $1\frac{1}{5}$ to $1\frac{2}{5}$ times as long as broad, its length $3\frac{1}{2}$ to $4\frac{1}{4}$ times in length to vent in males, $3\frac{3}{4}$ to $4\frac{3}{5}$ times in females; cheeks more or less swollen in males; snout obtuse or obtusely pointed, with the nasals more or less swollen, as long as or a little shorter than the postocular part of the head, with a distinct median concavity above, extending to the middle or the posterior extremity of the frontal shield; canthus rostralis obtuse, loreal region feebly concave. Pileus $1\frac{2}{3}$ to 2 times as long as broad. Neck as broad as or broader than the head. Hind limb reaching the elbow, the axil, or the shoulder in males, the wrist or the elbow in females; foot as long as the head or slightly longer or slightly shorter; toes short, not compressed, slightly denticulated laterally. Tail as long as head and body, or a little shorter or a little longer (exceptionally $1\frac{2}{5}$ times), more or less flattened at the base, especially in males, sometimes feebly compressed posteriorly.

Upper head-shields more or less convex, smooth or rugose; nasals in contact behind the rostral, the suture between them $\frac{1}{5}$ to $\frac{2}{3}$ the length of the frontonasal, which is broader than long; prefrontals as long as broad or longer than broad, usually forming a median suture,

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sometimes with one or two small shields between them*; frontal as long as or shorter than its distance from the end of the snout, $1\frac{1}{2}$ to $1\frac{3}{4}$ times as long as broad, $\frac{1}{3}$ to $\frac{2}{3}$ of its lateral border in contact with the supraoculars†; parietals as long as broad, or a little longer than broad or a little broader than long; interparietal much smaller than the frontoparietals; no occipital. Two large supraoculars, first usually shorter than second and as long as or shorter than its distance from the second loreal; sometimes a third, small supraocular, often band-like; sometimes one or two small shields in front, separated from the first large supraocular by a series of granules; 6 to 8, rarely 5, superciliaries, first longest; 1 to 3 series of granular scales between the supraoculars and the superciliaries, the first or second superciliary sometimes in contact with the first supraocular. Rostral $1\frac{1}{4}$ to $1\frac{1}{3}$ times as broad as deep, or nearly as deep as long; three nasals,‡ the lower usually separated from the rostral, sometimes narrowly in contact with it, resting on the first and second, rarely on the first, second, and third upper labials; anterior loreal deeper than long, shorter than the second, both sometimes transversely divided into two, rarely absent§; 5 to 8 upper labials to below the centre of the eye; subocular keeled below the eye, not reaching the mouth, resting on the 4th to 6th, 5th to 7th, 5th to 8th, 6th to 8th, 6th to 9th, or 6th to 10th upper labials. 2 to 4 narrow upper temporal shields sometimes present; temporal scales granular, smooth, lower usually much larger; tympanic shield as often absent as present‖; no auricular denticulation. Lower eyelid opaque, with feebly enlarged scales in the middle.

5 or 6, rarely 4, pairs of chin-shields, the two or three anterior in contact in the middle¶; 24 to 35, usually 26 to 30, gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate; gular fold distinct. Collar feebly curved, free, usually strongly serrated,** composed of 9 to 15 rather large plates, usually 9 to 13.

*. Out of 57 specimens examined, one shield is present in 13, two in 6; in one specimen there are three small shields, forming a triangle.

† In a young from Mangischlak a series of granules separates the frontal from the supraoculars.

‡ The lower nasal is divided in two specimens (♂ from Alakul and Isbes Khan).

§ In a female from Tartary.

‖ Present in 28 specimens out of 57.

¶ In two specimens the symphysis is formed by 2 shields on one side and 3 on the other.

** Nearly straight-edged in a female from Odessa.

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Scales coarsely granular and smooth,* flat or convex, larger and often squarish on the sides, 41 to 55 † across the middle of the body. Ventral plates in oblique longitudinal series, or tessellated, as long as broad, or a little longer or a little broader, in 30 to 35 slightly angular transverse series, the longest of which contain 16 or 18, rarely 14 or 20, plates. Preanal region covered with numerous small, irregular plates, rarely with an enlarged median plate posteriorly.

Upper surface of arm with smooth, rhombic scales, which are not or but slightly larger than the largest gulars. Scales on upper surface of tibia similar to dorsals or a little smaller; lower surface with 3 or 4 series of subequal plates or with one series of large and two of smaller plates. 7 to 14 femoral pores on each side, usually 8 to 12, the series sometimes restricted to the inner half of the thigh, sometimes extending along its whole length,‡ separated from its fellow by a wide interspace. Subdigital lamellæ in two unicarinate series, 17 to 25, usually 20 to 22, under the fourth toe.

Upper caudal scales smooth or feebly keeled, passing gradually into the dorsals, those at the base oblique and obtusely pointed; basal lower caudal scales smooth; 26 to 38 scales in the fourth or fifth whorl behind the postanal granules.

Young greyish above, with white, black-edged ocelli, which may be confluent into transverse bands, rarely into 6 or 8 longitudinal streaks. The ocelli persist in the adult or are replaced by black marblings or irregular transverse bands. Some exceptional females show a more primitive pattern, 8 white, black-edged streaks extending along the back and sides, these streaks continuous on the neck, more or less broken up on the body. I have also seen males and young with ocelli on the back and a white, black-edged lateral streak from the shoulder to the groin, or with 4 white, black-edged streaks on the nape and ocelli forming transverse bars on the body. Dark brown or black spots or large blotches may be present on the head. Lower parts white.

Bedriaga describes a var. *potanini*, from Bulun-Tochoi in Dshungaria, Central Asia, light brown above with two rows of remarkably large oblique dark brown spots; these spots have a rather indistinct light edge, or are accompanied by small round light spots; one or two series of small dark spots along each side.

* Bedriaga mentions a few specimens in which the scales are obtusely keeled on the posterior part of the back.

† 41 to 57 according to Bedriaga.

‡ Extremes in specimens from Tartary and Isbes Khan.

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Measurements (in millimetres):

	1.	2.	3.	4.	5.	6.
From end of snout to vent . .	97	85	66	93	70	68
„ „ „ fore limb .	35	31	25	34	23	23
Length of head	24	20	17	21	15	16
Width of head	20	16	13	15	11	11
Depth of head	16	11	10	12	9	8
Fore limb	31	30	23	30	23	20
Hind limb	47	42	35	44	33	29
Foot	22	19	17	21	16	15
Tail	—	110	81	—	67	60

1. ♂, Isbes Khan. 2. ♂, Syr Daria Steppes. 3. ♂, Baku. 4. ♀, Tchinas. 5. ♀, Tartary. 6. ♀, Dongus.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♀ St. George, Danube Delta . .	63	46	14	32	10	29	10–8	22	6–5
„ Odessa	63	46	16	32	9	28	9	20	6
♂ Crimea	61	53	16	34	12	30	11	22	7–6
„ Astrakan	53	54	16	34	11	28	10	24	7 6
„ Dongus, near Orenburg . .	73	47	18	30	9	30	8 10	20	6 7
„ „ „ . .	64	47	16	31	12	32	10–12	22	6–7
♀ „ „ . .	68	48	18	32	12	28	10–9	21	6–5
„ „ „ . .	62	50	14	31	10	28	12–11	20	6
♂ Kirghiz Steppes	67	55	18	33	13	30	9	22	7
„ „	62	55	16	31	10	27	9–7	23	7
„ Baku	67	48	14	31	11	28	8 9	20	7
„ „	66	54	16	34	11	30	13–11	22	6
„ „	59	54	18	31	10	24	9 10	21	7–6
„ „	58	47	16	33	12	26	12–13	20	7–8
♀ „	61	52	16	34	11	26	9–11	18	6
„ „	56	50	16	32	14	24	9–10	22	6–7
„ Novo Alexandrovsk, Mangischlak	69	47	16	31	10	28	8	22	7
„ „ „ .	54	46	16	32	10	30	11–9	21	7
♂ Alexandrovski Fortress, Transcaspia	60	51	16	32	15	30	10–11	22	6
♀ Tchinas, Syr Daria . . .	93	49	16	33	11	25	9	17	6–7
♂ Isbes khan, N. of Syr Daria .	97	47	16	31	13	26	14–12	18	7
„ Syr Daria Steppes, Russian Turkestan, P.M.	85	46	16	33	9	32	11–10	19	6–7
„ „ „ „	80	41	14	32	13	25	12	22	6
„ „ „ „	75	46	16	32	10	30	13–12	20	6–7
„ „ „ „	73	46	16	32	11	24	12	20	6–5
„ „ „ „	71	47	16	31	10	25	13–12	20	6
♀ „ „ „	80	44	14	34	10	31	10–9	19	6
„ „ „ „	73	44	14	34	9	22	10–9	20	6

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	1.	2.	3.	4.	5.	6.	7.	8.	9.
♀ Syr Daria Steppes, Russian Turkestan, **P.M.**	70	48	16	34	10	27	10	20	6
♂ L. Alakul	68	50	18	32	11	29	11	21	8 7
♀ „	65	51	18	33	10	30	11	20	7–8
♂ L. Sassyk Kul	75	52	18	35	11	35	10 12	22	8
♀ „	71	50	18	32	10	26	10	19	7 6
♂ Tarbagatai Mts.	66	49	16	33	10	26	9 10	20	7
„ L. Ourkatsch	60	52	16	33	11	29	10–11	22	6
♀ Tian Shan Mts.	54	52	16	32	9	27	9–10	18	6
♂ Turkestan (Tartary) . . .	77	50	16	34	13	29	11–12	25	7–6
♀ „	70	54	16	34	11	32	9	24	5
„ „	61	50	16	32	13	26	8–9	22	6

Habitat.—Roumania (Dobrudja), Southern Russia, Crimea, Transcaucasia, Central Asia from the Caspian Sea and the Ural River to Bokhara, Chinese Turkestan, and Semipalatinsk.

19. SCAPTIRA.

Scapteira (Fitzing.), Wiegm. Herp. Mex. p. 9 (1834); Dum. & Bibr. Erp. Gén. v, p. 281 (1839); Gray, Cat. Liz. p. 39 (1845); Lataste, Ann. Mus. Genova (2) ii, 1885, p. 126; Bouleng. Cat. Liz. iii, p. 107 (1887), and Journ. Zool. Res. iii, 1918, p. 2.

Meroles, part., Gray, Ann. N.H. i, 1838, p. 282.

Eremias, part., Dum. & Bibr. t.c. p. 286; Gray, Cat. Liz. p. 39.

Podarces, part., Strauch, Mél. Biol. Ac. St. Pétersb. vi, 1867, p. 408.

Saurites, Peters, Mon. Berl. Ac. 1869, p. 69; Lataste, l.c.

Head-shields normal, but occipital often rudimentary or absent. Nostril pierced between three nasals, widely separated from the first upper labial. Lower eyelid scaly. Collar distinct. Dorsal scales small and juxtaposed or subimbricate; ventral plates not or but feebly imbricate, with straight posterior border, smooth. Digits subcylindrical, compressed, or depressed, with smooth or keeled lamellar scales inferiorly, denticulated laterally. Femoral pores. Tail long, cylindrical or feebly compressed posteriorly.

Central Asia; South Africa.

The parietal foramen is constantly present, and pterygoid teeth are usually absent.

This genus is completely connected with *Eremias* and may be

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divided into three sections, the first and second of which are South African and no doubt derived from South African forms of the section *Mesalina*, whilst the third is Asiatic, like the members of the Section *Eremias* proper, to which these species stand in the same relation as the African forms to one another.

In spite of its diphyletic origin and notwithstanding its close relation to, and intergradation with, *Eremias*, I can see no objection to the retention of this genus in the sense here taken; but it is well to divide it into sections which express the relationship of the species.

In fact the genus *Scaptira* is simply made up of modified forms of *Eremias* agreeing in the stronger lateral serration of the digits and thus brought together as a result of convergence, such as accounts for many of our taxonomic divisions. If, however, objection should be felt to the course here followed, I would suggest uniting the two genera into one, keeping up the different sections as here defined, rather than a further multiplication of the genera.

That we are here in presence of a case of parallelism, through adaptation to desert life, is, I think, undeniable. The question whether the genus *Scaptira*, in the sense here taken, is justified is one of convenience *versus* principle,* *e. g.* whether it is advisable to group together in one genus several species derived from one type which became differentiated along diverging lines, the ends of which come to resemble each other, as has often been discussed in the case of the

* "The question . . . as to the single or multiple origin of genera is at bottom rather a question about words than about things, and the answer which we make to it will to a great extent depend upon the view taken as to the definition of the word *genus*. If we make classification an expression of real relationship, and not of mere similarity of structure, as should certainly be the end proposed, then it is obvious that all the species of a genus must be more nearly allied to each other than they are to those of any other genus, recent or extinct. But as genera are at present employed and in the existing state of knowledge, such an exact expression of relationship is impracticable, as that would necessitate a minute knowledge of the phylogeny of each species, such as we are very far from possessing." (W. B. Scott, Journ. of Morphol. v, 1891, p. 361.)

"It may be the general rule, as almost certainly has often happened, that a new genus arises by the separate assumption of the new character by several species of the ancestral genus, rather than through the rapid diversification of a single species, though, no doubt, parallel and divergent modification are both very frequent and important processes. Dr. Eigenmann concludes from his study of South American fresh-water fishes that a certain new genus is even now in process of origin through the transformation of several species of an older genus, which in different parts of the continent are simultaneously, but independently, taking on the new character." (W. B. Scott, History of Land Mammals in the Western Hemisphere, New York, 1913, p. 654.)

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suggested diphyletic origin of the genus *Equus*. But whereas in the case of the horses the terminus form would result from two long chains of parallel genera, here on the contrary the convergent branch-ends are independently issued from forms so closely related that one would not feel justified in breaking them up into genera.

Synopsis of the Species.

Section I. *Meroles*, Gray. Ventral plates in straight longitudinal series; snout conical; ear-opening entirely exposed, with projecting scales on the anterior border; toes compressed, keeled inferiorly.—S. Africa.

Scales keeled, 42 to 62 across middle of body; ventral plates in 12 (rarely 10) longitudinal series; nasals in contact behind the rostral; lower nasal largely in contact with the rostral; prefrontals rarely meeting on the median line; interparietal usually in contact with a small occipital; toes feebly serrated laterally; 13 to 20 femoral pores on each side . . . . . *S. knoxii*, M.-Edw., p. 350.

Scales smooth or feebly keeled, 60 to 75 across middle of body; ventral plates in 12 or 14 (rarely 16) longitudinal series; frontonasal in contact with the rostral; lower nasal largely in contact with the rostral; prefrontals usually forming a median suture; parietals meeting on the median line; occipital minute or absent; toes feebly serrated laterally; 14 to 21 femoral pores . . . . *S. suborbitalis*, Peters, p. 354.

Scales keeled on posterior part of back; ventral plates in 18 longitudinal series; nasals in contact behind the rostral; lower nasal not reaching the rostral; prefrontals forming a median suture; no occipital; toes strongly serrated laterally; 20 to 23 femoral pores . . *S. reticulata*, Bocage, p. 357.

Section II. *Saurites*, Peters. Ventral plates tessellated or forming oblique longitudinal series; snout much flattened, with angular labial margin; ear-opening partly covered by a dermal fold; lower nasal largely in contact with the rostral; toes compressed, keeled inferiorly, strongly serrated on the outer edge.—S. Africa.

Scales smooth or obtusely keeled, 78 to 92 across middle of body; a lateral band of enlarged keeled scales on the posterior part of the back; 22 to 26 ventral plates in the longest transverse series; nasals nearly meeting or forming a suture behind the rostral; 27 to 37 femoral pores on each side . . . . . *S. ctenodactyla*, A. Smith, p. 358.

Scales all smooth, 90 to 110 across middle of body; 26 to 30 ventral plates in the longest transverse series; frontonasal forming a suture with the rostral; 16 to 24 femoral pores. *S. cuneirostris*, Strauch, p. 361.

Section III. *Scaptira*, s. str. Ventral plates tessellated or forming oblique longitudinal series; snout conical; ear-opening entirely exposed; lower nasal not or but narrowly in contact with the rostral; toes compressed or depressed, moderately or strongly serrated laterally.—S.W. and C. Asia.

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A. Toes not or but feebly depressed, moderately serrated, the ungual lamella without or with rather narrow lateral expansion; ventral plates in 28 to 34 transverse series, 12 to 16 femoral pores on each side; subocular bordering the mouth.

Lower nasal in contact with or narrowly separated from the rostral; 19 to 22 lamellæ under the fourth toe; ungual lamella without lateral expansion; scales on upper surface of arm larger than largest gulars; caudal scales large, 19 to 21 in the 4th or 5th whorl . . . . . *S. lineolata*, Nik., p. 363.

Lower nasal separated from the rostral; 24 to 30 lamellæ under the fourth toe; ungual lamella with narrow wing-like expansion; scales on upper surface of arm not larger than largest gulars; caudal scales small, 26 to 36 in the 4th or 5th whorl . . . . . *S. scripta*, Strauch, p. 365.

B. Toes depressed, smooth inferiorly, rather feebly serrated laterally; ventral plates in 29 or 30 transverse series, 16 to 18 in the longest; 13 to 16 femoral pores on each side; subocular not reaching the mouth *S. transcaspica*, Nik., p. 368.

C. Toes depressed, smooth or faintly keeled inferiorly, strongly fringed laterally, the ungual lamella with strong wing-like lateral expansion; ventral plates in 35 to 42 transverse series, 20 to 24 in the longest series; 15 to 19 femoral pores on each side; subocular not reaching the mouth.

3 large supraoculars, forming sutures with each other; frontal as long as its distance from the end of the snout; parietals meeting in the middle; a large preanal plate *S. acutirostris*, Blgr., p. 368.

2 large supraoculars, preceded by a series of granules separating them from a small anterior shield; frontal as long as its distance from the end of the snout; parietals meeting in the middle; no enlarged preanal . . . . . *S. persica*, Nik, p. 370.

2 large supraoculars, preceded by small shields and granules; frontal as long as its distance from the nasals; parietals often separated by small shields or granules behind the interparietal; no enlarged preanal . . . *S. grammica*, Licht, p. 371.

1. SCAPTIRA KNOXII.

Lacerta knoxii, M.-Edw. Ann. Sc. Nat. xvi, 1829, pp. 76, 85, pl. vi, fig. 6.

Meroles knoxii, Gray, Ann. N. H. i, 1838, p. 282.

Eremias knoxii, Dum. & Bibr. Erp. Gén. v, p. 299 (1839); A. Smith, Ill. Zool. S. Afr., Rept. pl. xliii, fig. 1, and pl. xlviii, fig. 1 (1845).

Eremias knoxii, part., Gray, Cat. Liz. p. 40 (1845).

? Acanthodactylus nilgherrensis, Jerdon, Journ. As. Soc. Beng. xxi, 1853, p. 476, and Proc. As. Soc. Beng. 1870, p. 79.

Eremias fordii, Günth. Ann. & Mag. N. H. (4) ix, 1872, p. 331.

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Scapteira knoxii, Boulenq. Cat. Liz. iii, p. 109 (1887); Werner, Jen. Denkschr. xvi, 1910, p. 335.

Head and body moderately depressed. Head $1\frac{1}{3}$ to $1\frac{2}{5}$ times as long as broad, its length $3\frac{1}{2}$ to 4 times in length to vent in males, 4 to $4\frac{1}{2}$ times in females, its depth equal to the distance between the anterior corner or the centre of the eye and the tympanum; snout short, obtuse, nasals not or very feebly swollen, as long as the postocular part of the head, with a very distinct lanceolate concavity from the frontonasal shield to the middle or the posterior end of the frontal; canthus rostralis sharp, loreal region nearly vertical, concave. Pileus $1\frac{3}{4}$ to 2 times as long as broad. Neck as broad as the head or a little narrower. The hind limb reaches the collar, the ear, or between the ear and the eye in males, the collar or between the collar and the ear in females; foot $1\frac{1}{5}$ to $1\frac{2}{5}$ times as long as the head; digits feebly compressed. Tail about twice as long as head and body, feebly depressed at the base.

Upper head-shields rather convex, smooth or a little rugose; nasals forming a short or very short suture behind the rostral; frontonasal broader than long, sometimes longitudinally bisected*; prefrontals longer than broad, nearly always separated from each other by one or two small azygos shields or by 3 forming a triangle, or even 5†; frontal as long as its distance from the rostral or the end of the snout, $1\frac{2}{3}$ to 2 times as long as broad, narrow behind; parietals longer than broad; interparietal as large as the frontoparietal or smaller, in contact with a small occipital or separated from it by a small shield. Three supraoculars, sometimes a small fourth, the first usually with one or two small detached shields on the inner side, sometimes broken up into 4 to 9 shields; a complete or incomplete series of granules between the supraoculars and the superciliaries, which are 6 to 8 in number, first longest. Rostral $1\frac{1}{2}$ times as broad as deep; lower nasal broadly in contact with the rostral, resting on the first and second upper labials; anterior loreal as long as deep or deeper than long,‡ shorter than the second; subocular strongly keeled below the eye, resting on the 5th to 7th upper labials,§ forming a very obtuse angle between the 6th and 7th, its antero-inferior border much longer than the postero-inferior. Two elongate, keeled upper temporals, the anterior

* In 5 out of 24 specimens examined.—In 2 out of 15 examined by Werner.

† 9 specimens with 1, 7 with 2, 4 with 3, 1 with 5, and 3 without.—1 or 2 in the 15 specimens examined by Werner.

‡ Absent on one side in one specimen from Calvinia.

§ 4th to 6th in one specimen examined by Werner.—On the right side in one of the specimens in the Paris Museum.

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the longer; temporal scales granular or hexagonal, smooth or keeled; tympanic shield present or absent; 3 to 5 rounded or pointed projecting lobules in front of the ear.

4 pairs of chin-shields, the first or first and second* meeting in the middle; 30 to 43 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate; gular fold feebly marked or absent. Collar feebly curved, with 6 to 11 rather large plates.

Scales granular and feebly keeled on the nape, rhombic, subimbricate, and strongly and diagonally keeled on the back, larger and smooth towards the ventrals, 42 to 62 across the middle of the body. Ventral plates mostly broader than long, in 12, very rarely 10, straight longitudinal and 27 to 32 transverse series. One or two more or less enlarged median preanal plates, bordered by smaller plates.

A series of transversely enlarged, hexagonal, smooth or obtusely keeled plates on the upper surface of the arm. Upper surface of tibia with keeled scales similar to the dorsals or a little smaller; lower surface with one series of large and two of small plates. 13 to 21 femoral pores on each side, the two series meeting or narrowly separated in the middle.† Digits similar to those of *Acanthodactylus vulgaris*, with three series of scales, feebly serrated on the sides; subdigital lamellæ unicarinate, 21 to 26 under the fourth toe.

Caudal scales oblique, strongly and diagonally keeled, the upper rounded or obtusely pointed behind, 24 to 29 in the fourth or fifth whorls behind the postanal granules.

Young blackish above and on the sides, with round white spots and 5 longitudinal white streaks, the vertebral bifurcating on the nape and ending on the base of the tail, the dorsolateral starting from the superciliary edge, the lateral from below the eye and passing through the tympanum; round white spots on the limbs.

Adult greyish, yellowish, or reddish brown above, with a dark brown or black band, spotted with white, along each side of the back, two or three series of brown or black spots or ocelli on the sides, and a dark vertebral streak on the nape, or with 4 or 6 longitudinal series of ocellar spots; hind limbs with large round white, dark-edged spots. Lower parts white.

Measurements (in millimetres):

	1.	2.	3.	4.	5.
From end of snout to vent .	65	62	50	62	66
,, ,, ,, fore limb .	28	27	20	24	24

* Exceptionally 3 according to Werner.—4 chin-shields on one side and 5 on the other in one specimen examined by me (S. Africa).

† Milne-Edwards's statement that there are only 9 femoral pores is evidently due to a misprint.

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	1.	2.	3.	4.	5.
Length of head	17	16	13	14	16
Width of head	11	11	9	10	11
Depth of head	9	8	7	8	8
Fore limb	24	24	17	22	23
Hind limb	45	44	29	40	41
Foot	23	21	16	20	20
Tail	—	137	91	133	—

1. ♂, Cape of Good Hope (Paris Museum). 2. ♂, Calvinia. 3. ♂, Cape Town. 4. ♀, Little Namaqualand. 5. ♀, S. Africa (type of *E. fordii*).

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Cape of Good Hope, **P.M.**	65	60	12	29	8	36	21	25	6
„ „ „	55	62	12	27	10	35	20–19	22	6
♀ „ „	62	53	12	29	10	34	17	22	5–6
„ „ „	49	45	12	29	9	30	14	21	6
♂ Cape Town	50	48	12	28	9	30	15 14	20	6
„ Calvinia, Cape Colony	62	51	12	30	9	33	17–20	21	6
„ Port Nolloth, L. Namaqualand	56	58	10	27	11	35	18–17	26	6
„ „ „	56	59	12	29	6	38	19	26	6
„ „ „	51	61	12	27	9	32	17	25	6
♀ „ „	53	57	12	29	9	37	18	22	6
„ Little Namaqualand	62	56	12	31	8	32	16	25	6
„ „	59	54	12	32	9	32	16–17	26	6
„ „	58	60	12	29	9	40	16	24	6
♂ S. Africa	50	42	12	27	11	31	13–14	21	6
„ „ (type of *E. fordii*)	58	52	12	32	9	33	14–15	24	6
„ „ „	46	60	12	32	10	35	18–20	23	6
„ „ „	46	62	12	31	9	43	17–18	23	6
♀ „ „	66	52	12	30	7	37	17–16	25	6
„ „ „	56	61	12	32	8	39	18–17	22	6

1. Length from snout to vent. 2. Number of scales across middle of body. 3. Ventral plates in longest transverse series. 4. Transverse series of ventral plates. 5. Plates in collar. 6. Gular scales in straight median series. 7. Femoral pores (right and left if differing). 8. Lamellar scales under fourth toe. 9. Upper labials to below centre of eye.

Same explanation for the following tables in this genus.

Habitat.—Western parts of South Africa, from Great Namaqualand to the Cape Peninsula. The type described and figured by Milne-Edwards appears to be lost, but 6 specimens from Delalande's Collection are incorrectly labelled as types in the Paris Museum.*

This species agrees with *Eremias lineo-ocellata* in form, scaling and

* Of these, one belongs to *S. suborbitalis* and one to *Eremias capensis*.

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coloration to such an extent as to suggest a common derivation from the same original stock. But whilst more specialized than the *Eremias* in the laterally serrated toes and in the condition of the subocular shield, it is less advanced in the degree of disintegration of the supraorbital plates and in the absence of a transparent palpebral disc.

2. SCAPTIRA SUBORBITALIS.

? Lacerta depressa, Merrem, Tent. Syst. Amph. p. 63 (1820), and Beitr. Gesch. Amph. iii, p. 106, pl. viii (1821).

Eremias knoxii, part., Gray, Cat. Liz. p. 40 (1845).

Eremias suborbitalis, Peters, Œfvers. Vet. Ak. Förh. 1869, p. 658; Bouleng. Cat. Liz. iii, p. 90 (1887).

Scapteira depressa, Boettg. Ber. Senck. Ges. 1886, p. 12; Bouleng. t.c. p. 110; Boettg. Ber. Senck. Ges. 1887, p. 145; Werner, Jen. Denkschr. xvi, 1910, p. 336; Bouleng. Ann. S. Afr. Mus. v, 1910, p. 478; Methuen & Hewitt, Ann. Transv. Mus. iv, 1914, p. 140; Hewitt & Power, Tr. R. Soc. S. Afr. iii, 1918, p. 157.

Head and body rather strongly depressed. Head $1\frac{1}{3}$ to $1\frac{1}{2}$ times as long as broad, its length $3\frac{1}{2}$ to 4 times in length to vent in males, 4 to $4\frac{1}{4}$ times in females, its depth equal to the distance between the centre of the eye and the tympanum; snout short, usually pointed, sometimes obtuse, nasals rather strongly swollen, as long as the postocular part of the head, with a more or less distinct lanceolate concavity from the frontonasal shield to the middle or the posterior end of the frontal; canthus rostralis sharp, loreal region nearly vertical, concave. Pileus $1\frac{3}{4}$ to $1\frac{4}{5}$ times as long as broad. Neck as broad as the head or a little narrower. The hind limb reaches the ear or the eye in males, the ear or between the collar and the ear in females; foot $1\frac{1}{3}$ to $1\frac{1}{2}$ times as long as the head; digits feebly compressed. Tail $1\frac{3}{4}$ to $2\frac{1}{4}$ times as long as head and body, more or less depressed at the base.

Upper head-shields flat, smooth or a little rugose; frontonasal as long as broad or broader than long, forming a suture with the rostral; prefrontals as long as broad or a little broader than long, forming a short or rather short median suture, rarely separated by an azygos shield*; frontal as long as its distance from the rostral or the end of the snout, $1\frac{1}{2}$ to 2 times as long as broad, narrow behind; parietals as long as broad or broader than long, forming a median suture behind the interparietal, which is usually smaller than the frontoparietals; outer border of parietal often emarginate for the accommodation of the upper temporal; occipital very small or absent. 3 supraoculars,

* In 4 out of 24 specimens examined.

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forming sutures with each other; the first exceptionally* broken up into several small shields and granules, usually large and in contact with the frontal and with the first superciliary, sometimes separated from the former by one or two small shields; 6 to 8 superciliaries, first largest; a series of granules between the superciliaries and the second and third supraoculars, or 1 in front and 2 or 3 behind. Rostral $1\frac{1}{2}$ to $1\frac{2}{3}$ times as broad as deep; lower nasal broadly in contact with the rostral, resting on the first or first and second upper labials; anterior loreal as long as deep or longer than deep, shorter than the second; subocular strongly keeled below the eye, resting on the 4th to 6th, 5th to 7th, 6th to 9th, or 5th to 8th upper labials, forming a very obtuse angle between the 6th and 7th, more rarely 5th and 6th, 7th and 8th, or 8th and 9th, its antero-inferior border much longer than the postero-inferior. A large, keeled upper temporal, sometimes divided into 2 or 3; temporal scales granular, smooth; a small tympanic shield; 2 to 5 rounded or pointed projecting lobules in front of the ear.

5 pairs of chin-shields, the 2 or 3 anterior in contact in the middle; 31 to 43 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate; no gular fold. Collar feebly curved, with 7 to 12 rather small and irregular plates.

Scales all granular and smooth, or posterior dorsals obtusely keeled and rhomboidal, 60 to 75 across the middle of the body. Ventral plates as long as broad or a little broader than long in 12 or 14† straight longitudinal and 29 to 37 transverse series. Preanal region covered with small irregular plates, or with two median feebly enlarged.

Scales on upper surface of arm large, rounded, smooth. Upper surface of tibia with granular or feebly keeled scales as large as or a little larger than dorsals; lower surface with one series of large and one or two of small plates. Digits as in the preceding species; 22 to 30 lamellæ under the fourth toe, usually 23 to 28.

Upper caudal scales oblique, more or less strongly and diagonally keeled, truncate behind, lower smooth, at least on the base of the tail; 24 to 32 scales in the fourth or fifth whorl behind the postanal granules.

Young with markings very similar to those of *S. knoxii*, *i. e.* with five light longitudinal streaks, the median bifurcate on the nape, separated by black streaks spotted with white or by series of black, more or less ring-like spots; tail lemon-yellow.

The light streaks usually disappear completely in the adults, which

* Male from Naroep.

† Exceptionally 16, according to Werner.

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are grey, greyish brown, or coppery red* with blackish spots forming longitudinal series and a blackish vertebral streak on the neck, or with blackish dots or vermiculations irregularly disposed; sometimes with 2 or 3 series of white, black-edged ocellar spots on the sides; hind limbs with round white, dark-edged spots. Lower parts white.

Measurements (in millimetres):

	1.	2.	3.	4.
From end of snout to vent . .	61	63	62	57
„ „ „ fore limb .	27	25	24	22
Length of head	16	16	15	14
Width of head	12	11	11	10
Depth of head	—	7	7	6·5
Fore limb	25	24	23	21
Hind limb	49	44	43	40
Foot	—	21	21	20
Tail	137	140	—	112

1. ♂, Damaraland (type). 2. ♂. Naroep. 3. ♀, Steinkopf. 4. ♀, Little Namaqualand.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Little Namaqualand . . .	60	69	14	31	12	40	18	25	6
♀ „ „ . . .	57	64	12	32	7	40	17–18	22	6
♂ Naroep „ . . .	63	63	12	33	9	41	20	24	8–7
♀ Steinkopf „ . . .	62	65	12	35	9	38	17–16	25	7–6
„ „ „ . . .	62	72	14	35	12	39	20	24	6
„ Groendoorn, Gt. Namaqualand .	50	68	14	33	11	41	18	24	6
♂ Aus „ .	63	60	14	31	10	38	18–16	26	6
„ „ „ .	42	64	14	33	9	38	15–14	23	7
„ Angra Pequena „ .	53	67	12	30	10	36	19–17	30	7–6
„ „ „ .	49	65	12	29	7	31	17–16	26	6–7
♀ „ „ .	52	68	12	30	8	37	18–17	28	6
„ „ „ .	50	65	14	33	10	37	17	28	6
„ „ „ .	50	61	14	33	10	36	19–18	24	6–7
♂ Upington, Bechuanaland, McG.M.	60	74	14	37	9	42	18	27	5–6
♀ „ „ .	61	73	14	35	9	36	18–17	27	6
♂ S. Africa	46	75	14	31	9	38	18	23	6–5
♀ „	58	70	14	33	10	40	17	23	5
„ „	56	72	14	35	9	43	21	25	7–6

Habitat.—Damaraland to Little Namaqualand and Bechuanaland. The locality Johanna, Comoro Islands (Bewsher, British Museum), is erroneous, or the occurrence of the lizard on that island is due to importation.

Easily distinguished from the preceding by the smooth scales

* Occasionally greenish, according to Methuen.

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on the anterior part of the back and by the separation of the nasal shields behind the rostral, this species is probably descended from the same stock. On reconsidering the description given by Kuhl of *Lacerta depressa*, I think the identification too doubtful to justify precedence over Peters's *Eremias suborbitalis*, the description of which is perfectly clear, the type being preserved in the Berlin Museum, where I have examined it in 1886.

3. SCAPTIRA RETICULATA.

Scapteira reticulata, Bocage, Ann. & Mag. N. H. (3) xx, 1867, p. 225; Bouleng. Cat. Liz. iii, p. 112 (1887); Bocage, Herp. Ang. p. 32 (1895); Werner, Jen. Denkschr. xvi, 1910, p. 338.

Podarces (Scapteira) reticulata, Strauch, Mél. Biol. Ac. St. Pétersb. vi, 1867, p. 424.

Eremias serripes, Peters, Œfvers. Vet. Ak. Förh. 1869, p. 659.

Scapteira serripes, Bouleng. t.c. p. 111.

Snout long and pointed, nasals feebly swollen, loreal region concave. The hind limb reaches the eye; foot about $1\frac{1}{4}$ times the length of the head; digits compressed.

Nasals in contact behind the rostral; frontal grooved anteriorly; interparietal rhomboidal; no occipital; three large supraoculars, the first with a small shield on each side,* the two others bordered externally with granules. Lower nasal not meeting the rostral; subocular resting on the 6th, 7th and 8th upper labials†; no band-like upper temporal shield; temporal scales obtusely keeled; anterior border of ear with two or three large projecting scales. The two or three anterior pairs of chin-shields in contact. Collar curved, with 9 or 10 plates.

Scales granular and smooth on the nape and between the shoulders, larger, subimbricate, and obtusely keeled on the back. Ventral plates about as long as broad, subequal, in 18 straight longitudinal and 29 or 30 transverse series. Two large preanals, posterior the larger.

Digits keeled inferiorly, strongly fringed laterally; one series of very large and two or three of small plates under the tibia. 21 to 23 femoral pores on each side.

Upper caudal scales strongly keeled.

* According to Werner, it may be broken up into two shields and a number of small scales.

† Bocage has himself pointed out that the subocular is incorrectly described in the original account of *S. reticulata*.

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Sandy grey above, with blackish reticulation; lower parts white.

Measurements (in millimetres):

From end of snout to vent	47
„ „ „ fore limb	19
Length of head	14
Width of head	9
Fore limb	20
Hind limb	47

Habitat.—Coast of Benguella, Damaraland, Hereroland. A specimen from Little Namaqualand is preserved in the South African Museum.

The above notes are taken from two specimens in the Berlin Museum: the type of *E. serripes*, from Damaraland, and one of the types of *S. reticulata*, from Benguella.

4. SCAPTIRA CTENODACTYLA.

Lacerta ctenodactylus, A. Smith, Mag. N. H. (2) ii, 1838, p. 93.

Acanthodactylus capensis, A. Smith, Ill. Zool. S. Afr., Rept. pl. xxxix (1845); Gray, Cat. Liz. p. 37 (1845); A. Dum. Cat. Méth. Rept. p. 127 (1851); Peters, Mon. Berl. Ac. 1869, p. 61; Bouleng. Proc. Zool. Soc. 1881, p. 744.

Scapteira ctenodactyla, Bouleng. Cat. Liz. iii, p. 115 (1887).

Head and body much depressed. Head $1\frac{1}{3}$ to $1\frac{1}{2}$ times as long as broad, its depth equal to the distance between the centre or the anterior corner of the eye and the tympanum, its length $3\frac{1}{2}$ to $3\frac{3}{4}$ times in length to vent; snout much flattened, obtusely pointed, with the nasals flat or very feebly swollen and projecting angular labial margin, about $1\frac{1}{2}$ times as long as the postocular part of the head; canthus rostralis sharp, loreal region very concave. Ear-opening partly concealed under an oblique dermal fold. Pileus 2 to $2\frac{1}{4}$ times as long as broad. Neck as broad as the head or a little narrower. Hind limb reaching the eye or between the ear and the eye in males, the ear or between the ear and the eye in females; foot $1\frac{1}{4}$ to $1\frac{1}{3}$ times as long as the head; fingers cylindrical, toes slender, compressed. Tail $1\frac{1}{2}$ to $1\frac{4}{5}$ times as long as head and body, much flattened at the base.

Upper head-shields flat, smooth; nasals forming a short suture behind the rostral or very narrowly separated from each other; frontonasal broader than long; prefontals longer than broad, forming an extensive median suture; frontal as long as its distance from the nasals, 2 to $2\frac{1}{3}$ times as long as broad, narrow behind, feebly grooved in front, with a series of 2 to 4 small shields, rarely a single shield,

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between them and the supraoculars; parietals as long as broad; interparietal smaller than the frontoparietals, in contact with the small occipital, or separated from it by a small shield; 3 large supraoculars, forming sutures with each other, the first as long as or a little shorter than the second and in contact with the frontonasal, the second loreal, and the first superciliary; third supraocular followed by a granular area; one (rarely two) series of granules between the second and third supraoculars and the superciliaries, which are 6 to 8 in number, first longest. Lower nasal broadly in contact with the rostral, resting on the first and second (rarely also third) upper labials; anterior loreal longer than deep, shorter than the second; subocular strongly keeled below the eye, resting on the 5th to 7th, 6th to 8th, or 6th to 9th upper labials, forming a very obtuse angle between the 6th and 7th, 7th and 8th, or 8th and 9th, its antero-inferior border much longer than the postero-inferior. 2 to 4 small, keeled upper temporals; temporal scales granular, smooth or obtusely keeled; tympanic shield usually present; 2 or 3 obtuse projecting lobules in front of the ear.

5 or 6 pairs of chin-shields, the 3 first meeting in the middle. 32 to 43 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate; no gular fold. Collar straight or slightly curved, with 12 to 17 small pointed plates.

Scales granular, smooth or obtusely keeled; a narrow band of larger, rhomboidal, keeled scales on each side of the posterior part of the back and of the sacral region; 78 to 92 scales across the middle of the body. Ventral plates as long as broad, tessellated or forming oblique longitudinal series, in 35 to 39 transverse series, the longest of which contains 22 to 26 plates. Preanal region covered with small irregular plates, or with an enlarged postero-median plate.

Upper surface of arm with rather large, rhombic, obtusely keeled scales. Upper surface of tibia with rhombic feebly keeled scales, which are a little larger than the dorsals; lower surface with one row of transversely enlarged plates and 2 or 3 rows of smaller plates. 27 to 37 femoral pores on each side, the two series narrowly separated in the middle. Fingers with 4 series of scales, symmetrically and rather strongly serrated on each side, feebly unicarinate beneath; toes with 3 series of scales, the outer forming a rather strong fringe, the subdigital lamellæ strongly keeled and 22 to 28 in number under the fourth toe.

Upper caudal scales rhombic, keeled, lower, at the base of the tail, smooth or obtusely keeled; a broad band of granules, continued from the back, along the middle of the base of the tail; 46 to 52 scales in the fourth or fifth whorl behind the postanal granules.

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Greyish, brownish, or orange above, uniform or with a darker reticulation; a yellowish or whitish dark-edged dorsolateral streak, a broad dark brown or brick-red lateral band and a yellowish or whitish lateral streak from below the eye to the groin; sides and limbs with yellowish or whitish spots. Tail sometimes reddish, with a dark lateral streak. Lower parts yellow or white.

Measurements (in millimetres):

	1.	2.	3.	4.
From end of snout to vent .	78	89	97	81
„ „ „ fore limb .	36	40	37	34
Length of head . . .	21	25	25	23
Width of head	15	17	19	16
Depth of head	10	11	13	11
Fore limb	29	32	35	29
Hind limb	58	63	67	57
Foot	26	32	33	27
Tail	136	150	170	125

1. ♂, G. Namaqualand, type. 2. ♂, L. Namaqualand. 3. ♀, G. Namaqualand, type. 4. ♀, Port Nolloth.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂, Great Namaqualand (type) .	78	82	22	38	13	32	29–30	26	7–6
♀ „ „ .	97	78	24	37	17	33	30	22	6
„ „ **P.M.** .	77	80	22	36	12	34	30	27	8
♂ Little Namaqualand . . .	89	80	24	37	14	36	27	26	6–7
„ Port Nolloth, L. Namaqualand .	84	81	24	35	17	36	37–36	25	7
„ „ „ .	80	90	24	36	15	40	31–33	25	7
„ „ „ .	78	80	26	36	13	43	35–37	28	6–7
„ „ „ .	78	79	24	36	14	36	32	25	6–8
♀ „ „ .	81	83	26	37	12	37	30–33	25	8–7
„ Beaufort West	87	92	26	39	14	?	30–29	26	7–8

Habitat.—According to A. Smith "this lizard is found in the sandy districts of Great Namaqualand, and where the surface of the country is irregular it is generally met on the highest spots." It also occurs in Little Namaqualand and the Great Karoo (Beaufort West).

Like the two preceding species, this *Scaptira* must have been directly derived from the S. African *Eremias* of the Section *Mesalina*. But whilst *S. knoxii* stands near to *E. lineo-ocellata*, *S. ctenodactyla* has more in common with *E. capensis*, and, except for the presence of a large anterior supraocular, it might be regarded as the highly specialized descendant of that species.

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5. SCAPTIRA CUNEIROSTRIS.

Podarces (Scapteira) cuneirostris, Strauch, Mél. Biol. Ac. St. Pétersb. vi, 1867, p. 411.

Saurites (Eremias) cuneirostris, Peters, Mon. Berl. Ac. 1869, p. 60.

Scapteira cuneirostris, Boulenger, Cat. Liz. iii, p. 116 (1887); Werner, Jen. Denkschr. iv, 1910, p. 339, pl. vi, fig. 1.

Head and body much depressed. Head about $1\frac{1}{3}$ to $1\frac{1}{2}$ times as long as broad, its depth equal to the distance between the centre of the eye and the tympanum, its length $3\frac{1}{3}$ to $3\frac{2}{3}$ times in length to vent; snout much flattened, obtusely pointed, with swollen nasals and projecting angular labial margin, as long as postocular part of head; canthus rostralis sharp, loreal region very concave. Pileus twice as long as broad. Ear-opening partly concealed under an oblique dermal fold. Neck as broad as the head. Hind limb reaching the ear (female) or the eye (male); foot $1\frac{1}{3}$ to $1\frac{1}{2}$ times as long as the head; fingers cylindrical, toes slender, compressed. Tail $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as head and body, much flattened at the base.

Upper head-shields rather convex, smooth; rostral forming a suture with the frontonasal, separating the nasals; frontonasal a little broader than long; prefrontals as long as broad or a little longer than broad, forming a median suture; frontal as long as its distance from the rostral, $1\frac{1}{2}$ to $1\frac{3}{4}$ times as long as broad, narrow behind, grooved in front, in contact with the supraoculars or separated from them by a series of small scales *; parietals as long as broad or a little broader than long, rounded behind and on the sides; interparietal smaller than the frontoparietals, followed by a series of 3 or a group of 4 or 5 small shields or granules separating the parietals †; 3 large supraoculars, forming sutures with each other, the first as long as or a little shorter than the second and in contact with the frontonasal, the second loreal, and the first superciliary, sometimes also with the frontal; third supraocular followed by a granular area; a series of granules between the second and third supraoculars and the superciliaries, which are 6 or 7 in number, first longest. Lower nasal broadly in contact with the rostral, resting on the first and second upper labials; anterior loreal as long as the second; subocular resting on the 5th and 6th, 6th and 7th, or 5th to 7th upper labials,‡ lower border straight. Temporal scales granular, smooth, lower larger and sometimes obtusely keeled.

* 2 to 6 scales in the specimens examined by me, 1 to 7 in those examined by Werner.—Sometimes also a few granular scales between the first and second supraoculars.

† This appears to be normal, judging from Werner's notes on 14 specimens, but Strauch describes the occipital as represented by one granule.

‡ Exceptionally 4th and 5th, according to Werner.

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5 or 6 pairs of chin-shields, the 3 first meeting in the middle*; 36 to 51 gular scales in a straight line between the symphysis of the chin-shields and the median collar-plate; no gular fold. Collar straight, with 12 to 16 small plates.

Scales granular and smooth, increasing in size on the lower part of the side and passing gradually into the ventrals, 90 to 110 across the middle of the body. Ventral plates as long as broad or longer than broad, tessellated or forming oblique longitudinal series, in 40 to 46 transverse series, the longest of which contains 24 to 28 plates.† Preanal region covered with small irregular plates.

Upper surface of fore limb with rather large, rhombic, keeled scales. Upper surface of tibia with rhombic keeled scales anteriorly, graduating into small smooth granules further back; lower surface with one row of transversely enlarged plates and 3 rows of smaller plates. 19 to 23 femoral pores‡ on each side, the two series narrowly separated in the middle. Fingers with 4 series of scales, symmetrically and rather strongly serrated on both sides, feebly unicarinate beneath; toes with 3 series of scales, the outer forming a rather strong fringe, the subdigital lamellæ strongly keeled§ and 22 to 24 in number under the fourth toe.

Upper caudal scales rhombic, rather strongly and diagonally keeled, lower, on the base of the tail, smooth or very obtusely keeled; a band of granules, continued from the back, along the middle of the base of the tail; 40 to 50 scales in the fourth or fifth whorl behind the post-anal granules.

Greyish or sand-colour above, with a darker network enclosing round light spots; sometimes a rather indistinct dark vertebral streak; tail with 3 blackish longitudinal streaks in the basal third. A female specimen in the Paris Museum is dotted with blackish above; a broad dark lateral band, spotted with whitish and edged above and beneath by a narrow whitish streak. The young is described by Werner as closely dotted with dark and light above; upper lip and lower surface of tail orange-red. Lower parts white.

* 2 on one side and 3 on the other in one specimen.

† 20 to 28 according to Werner.

‡ 16 to 24 according to Werner.

§ In describing the subdigital lamellæ of the toes as smooth, Strauch has evidently made a mistake in their orientation, taking the median keel and the serration formed by it to represent the outer border of the toe. I am inclined to think that the flattened toes of *S. grammica* are due to a rotation of the axis of the digit, owing to which the outer half has come to represent the whole lower surface.

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Measurements (in millimetres) :

	♂	♀
From end of snout to vent	58	50
„ „ „ fore limb	27	21
Length of head	17	14
Width of head	13	10
Depth of head	8	6·5
Fore limb	24	17
Hind limb	47	35
Foot	22	17
Tail	95	80

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Damaraland	58	99	28	48	16	46	22–23	23	7
„ „	45	102	26	45	13	51	22	22	6
♀ Great Namaqualand, **L.M.**	50	110	24	46	13	49	20–21	22	6
„ „ **P.M.**	49	102	24	47	13	47	21–19	24	6
♂ S. Africa	55	90	24	42	14	36	19–22	24	6

Habitat.—Damaraland and Great Namaqualand.

Closely allied to the preceding species and still more highly specialized.

6. SCAPTIRA LINEOLATA.

Scapteira scripta (non Strauch), Boettg. Zool. Jahrb. iii, 1888, p. 914.

Scapteira scripta, part., Zander, Zool. Gart. xxxvi, 1896, p. 303.

Scapteira lineolata, Nikolsky, Ann. Mus. Zool. St. Pétersb. i, 1897, p. 330, and iv, 1899, p. 395.

Scapteira grum-grzimailoi, Bedriaga, in Nikolsky, Herp. Ross. p. 484 (1905); Elpatjevsky & Sabanejev, Zool. Jahrb., Syst. xxiv, 1906, p. 254; Bedriaga, Ann. Mus. Zool. St. Pétersb. x, 1907, p. 31; Nikolsky, Ann. Mus. Zool. St. Pétersb. xvi, 1911, p. 282; Bedriaga, Wiss. Res. Przewalski Reis., Amph. Rept. p. 657, pl. viii, fig. 10 (1912).

Head and body rather strongly depressed. Head $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as broad, its length $3\frac{1}{2}$ to $4\frac{1}{3}$ times in length to vent, its depth equal to the distance between the centre of the eye and the tympanum; snout pointed, with strongly swollen nasals, as long as the postocular part of the head, with sharp canthus and vertical, grooved loreal region. Pileus twice as long as broad. Neck a little narrower than the head. Hind limb reaching the shoulder, the collar, or the eye; foot $1\frac{1}{4}$ to $1\frac{2}{5}$ times as long as the head; digits

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slender, compressed. Tail about twice as long as head and body, depressed at the base, slightly compressed posteriorly.

Upper head-shields smooth; nasals in contact behind the rostral, the suture between them $\frac{1}{3}$ to $\frac{2}{3}$ the length of the frontonasal, which is broader than long; prefrontals as long as broad, forming a median suture; frontal as long as its distance from the nasals or the end of the snout, $1\frac{3}{4}$ to 2 times as long as broad, narrow behind, grooved along the middle; parietals a little broader than long; interparietal smaller than the frontoparietals; occipital minute or absent. Two large supraoculars, preceded by a scaly or granular area, and followed by a series of granules and a small band-like shield; a series of granules on the inner side of the supraoculars and one or two between the latter and the superciliaries, which are 5 to 7 in number. Rostral a little broader than deep, narrower beneath than above; lower nasal touching the rostral or narrowly separated from it,* resting on the 2 or 3 anterior upper labials; anterior loreal as long as deep or deeper than long, shorter than the second; subocular strongly keeled below the eye, much narrowed beneath and bordering the mouth between the 5th and 6th or 6th and 7th, rarely 7th and 8th, upper labials. Temporal scales finely granular and smooth above, much larger beneath; tympanic shield distinct; 4 or 5 projecting granules in front of the ear.

5 pairs of chin-shields, the 3 anterior in contact in the middle; 21 to 27 gular scales on a line between the symphysis of the chin-shields and the median collar-plate; no gular fold. Collar feebly curved, with 9 to 12 plates.

Scales granular, smooth, 54 to 62† across the middle of the body. Ventral plates as long as broad or a little broader than long, forming 14 oblique longitudinal and 30 to 33 transverse series. Preanal region covered with numerous small shields, of which the postero-median is often enlarged.

Upper surface of arm with rhombic smooth scales which are larger than the largest gulars. Upper surface of tibia with granular scales similar to the dorsals; lower surface with one series of large and one of small plates. 12 to 16 femoral pores on each side. Fingers and toes compressed, with 3 series of scales; fingers scarcely serrated laterally; toes with moderately strong lateral fringe on the outer

* According to Bedriaga, *S. grum-grzimailoi* differs from *S. lineolata* in having the lower nasal in contact with the rostral; but the specimen of *S. lineolata*, one of the types, received from Dr. Nikolsky presents the same condition, which I find also in 2 out of 4 specimens from Transcaucasia; the character is therefore not of specific importance, just as in *Eremias velox*.

† 50 to 56 in *S. grum-grzimailoi*, according to Bedriaga.

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side; subdigital lamellæ keeled, 19 to 22 under the fourth toe; ungual lamella without lateral enlargement.

Upper caudal scales very large, acutely pointed or even mucronate, strongly and diagonally keeled; basal subcaudals feebly keeled; 19 to 21 scales in the fourth or fifth whorl behind the postanal granules.

Pale sand-colour above, with 5, 6, or 7 dark brown or blackish dorsal streaks, the outer broadest and extending to the supraocular region; two lateral streaks on each side, the upper broader, originating behind the nostril, passing above the tympanum and extending on the side of the tail, and sometimes with small white spots, the lower originating below the eye and passing through the tympanum; 4 or 5 streaks on the pelvic region and 3 on the upper surface of the base of the tail; a dark streak along the upper part of the upper labials; limbs dark brown with large round white spots. Lower parts white.

Measurements (in millimetres):

	1.	2.
From end of snout to vent	47	43
„ „ „ fore limb	18	17
Length of head	12	10
Width of head	7	6·5
Depth of head	5	4·5
Fore limb	19	16
Hind limb	32	26
Foot	16	14
Tail	95	88

1. ♂, Feizabad, E. Persia (type). 2. ♀, Askhabad, Transcaspia.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ Feizabad, E. Persia (type)	47	54	14	33	9	25	16-15	22	6
♀ Askhabad, Transcaspia	43	62	14	31	12	24	13	22	6-5
♂ Belkuju „	47	55	14	30	10	27	14	20	6
♀ Perevalnaja „	41	60	14	30	10	25	14-12	20	5
♂ Tedshen „	37	57	14	32	12	23	14	19	7-6

Habitat.—Transcaspia, Bokhara, and Eastern Persia.

7. SCAPTIRA SCRIPTA.

Podarces (*Scapteira*) *scripta*, Strauch, Mél. Biol. Ac. St. Pétersb. vi, 1867, p. 424.

Scapteira scripta, Severzow, Faun. Turkest. p. 72 (1873); Bouleng. Cat. Liz. iii, p. 112 (1887); Alcock & Finn, Journ. As. Soc. Beng. lxv, ii, 1896, p. 559; Nikolsky, Fedtschenko's Reise Turkest., Zool. ii,

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pt. vii, p. 38, pl. vii, fig. 2 (1899), Herp. Ross. p. 171 (1905), and Ann. Mus. Zool. St. Pétersb. xvi, 1911, p. 281.

Scapteira scripta, part., Zander, Zool. Gart. xxxvi, 1896, p. 303.

Scapteira bilkewitschi, Nikolsky, Herp. Ross. p. 486.

Head and body rather strongly depressed. Head about $1\frac{1}{2}$ times as long as broad, its length $3\frac{3}{4}$ to 4 times in length to vent, its depth equal to the distance between the centre of the eye and the tympanum; snout pointed, with rather strongly swollen nasals, as long as the postocular part of the head, with sharp canthus and vertical, grooved loreal region. Pileus $1\frac{3}{4}$ to 2 times as long as broad. Neck a little narrower than the head. Hind limb reaching the collar or between the collar and the eye; foot $1\frac{1}{7}$ to $1\frac{1}{2}$ times as long as the head; toes slender, not or but feebly compressed. Tail about twice or a little more than twice as long as head and body, depressed at the base, slightly compressed posteriorly.

Upper head-shields smooth; nasals in contact behind the rostral, the suture between them $\frac{1}{3}$ to $\frac{2}{3}$ the length of the frontonasal, which is broader than long; prefrontals as long as broad or a little broader than long, forming a median suture; frontal as long as its distance from the nasals or the end of the snout, $1\frac{3}{4}$ to 2 times as long as broad, narrow behind, grooved in the middle; parietals a little broader than long; interparietal much smaller than the fronto-parietals; occipital minute or absent. Two large supraoculars, preceded by a scaly or granular area and followed by a series of granules and a small band-like shield; a series of granules on the inner side of the supraoculars and one, two, or three between the latter and the superciliaries, which are 4 to 6 in number. Rostral as deep as broad, narrower beneath than above; lower nasal not reaching the rostral, resting on the 2 or 3 anterior upper labials; anterior loreal as long as deep or a little deeper than long, much shorter than the second; subocular strongly keeled below the eye, much narrowed beneath and bordering the mouth between the 5th and 6th or 6th and 7th* upper labials. Temporal scales finely granular and smooth above, much larger beneath; tympanic shield small if distinct; no auricular denticulation.

5 pairs of chin-shields, the 3 anterior in contact in the middle; 19 to 22† gular scales on a line between the symphysis of the chin-shields and the median collar-plate; no gular fold. Collar curved, with 10 to 12 plates.

* Or 7th and 8th (*S. bilkewitschi*, Nikolsky).

† 20 to 26 according to Nikolsky.

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Scales granular, smooth, 58 to 65 across the middle of the body. Ventral plates mostly as long as broad, forming 12 to 16 oblique longitudinal and 30 to 33 transverse series.* Preanal region covered with numerous small shields, of which the postero-median may be enlarged.

Upper surface of arm with roundish smooth scales which are not larger than the largest gulars. Upper surface of tibia with granular scales similar to the dorsals; lower surface with one series of large and one of small plates. 12 to 16 femoral pores on each side. Fingers and toes with 3 series of scales; fingers scarcely serrated laterally; toes with a moderately strong fringe on each side; subdigital lamellæ feebly keeled, 24 to 30 under the fourth toe; ungual lamella with a feeble but very distinct wing-like lateral expansion.†

Upper caudal scales moderately large, truncate or obtusely pointed, diagonally keeled; basal subcaudals smooth; 26 to 36 scales in the fourth or fifth whorl behind the postanal granules.

Strauch's original description of the coloration is as follows: "Pale sand-colour above, with numerous dark brown dots and vermicular lines, the latter predominating on the back and mostly arranged in more or less regular longitudinal lines; a broad dark brown longitudinal lateral band, originating from the nostril and extending to the tail; this band edged above with a narrow whitish streak and separated by a wide white space from a narrower dark streak from the upper labials, through the tympanum, to the inguinal region; irregular dark cross-bars on the limbs; a dark median streak on the tail. Lower parts white." In the specimens at my disposal the dark lines along the back are 6 or 7 in number.

Measurements (in millimetres):

	1.	2.
From end of snout to vent . . .	44	42
,, ,, ,, fore limb . .	16	16
Length of head	11	10
Width of head	6·5	6
Depth of head	4·5	4·5
Fore limb	17	16
Hind limb	29	28
Foot	14	13
Tail	99	85

1. ♂, Baluchistan. 2. ♀, R. Lepsa.

* 29 to 34 according to Nikolsky.

† Of which, like Boettger, I can find no trace in the specimens referred by me to *S. lineolata*.

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Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♀ R. Lepsa . .	44	58	14	33	12	22	12	24	6
„ „ . .	42	59	14	33	11	21	13	25	6
„ Copet Dagh . .	35	61	12	33	10	21	16–14	28	6–5
♂ Baluchistan . .	44	65	14	30	10	19	13–14	30	6

Habitat.—From the Aralo-Caspian Desert and Transcaspia to Russian Turkestan; Baluchistan near Afghan frontier.

8. SCAPTIRA TRANSCASPICA.

Scapteira transcaspica, Nikolsky, Herp. Ross. p. 489 (1905).

Appears to be intermediate between *S. scripta* and *S. grammica*, the toes being depressed and smooth inferiorly, but only rather feebly serrated laterally ("*dentibus digitorum lateralibus parvis*"). Nasals swollen, lower not reaching the rostral. A minute occipital. A small anterior supraocular, separated from the large one by a series of granules. Subocular not reaching the mouth, above the 6th to 8th upper labials. Collar hardly curved, with 11 plates. Scales granular, smooth, laterals largest. Ventral plates as long as broad or slightly longer than broad, in 29 or 30 transverse series, the longest containing 16 or 18 plates. No enlarged preanal. Hind limb reaching the collar. 13 to 16 femoral pores on each side. Tail $1\frac{1}{2}$ to $1\frac{2}{3}$ times as long as head and body; upper caudal scales feebly keeled.

Uniform blackish above, with a rather indistinct light lateral streak; belly bluish; lower surface of limbs and tail white.

Measurements (in millimetres):

From end of snout to vent . . .	48
„ „ „ fore limb . .	20
Length of head	14·5
Width of head	9
Fore limb	18
Hind limb	29
Tail	77

Habitat.—Repetek, Transcaspia.

This species is only known to me from Nikolsky's description.

9. SCAPTIRA ACUTIROSTRIS.

Scapteira acutirostris, Boulenger, Cat. Liz. iii, p. 114 (1887), Tr. Linn. Soc. (2) v, 1889, p. 100, pl. ix, fig. 4, and Faun. Ind., Rept p. 179 (1890).

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Head and body strongly depressed. Head 1½ times as long as broad, its length 3½ times in length to vent, its depth equal to the distance between the centre of the eye and the tympanum; snout acutely pointed, with the nasals slightly swollen, as long as the postocular part of the head; canthus rostralis rather obtuse, loreal region nearly vertical and feebly concave. Pileus 1¾ times as long as broad. Neck a little narrower than the head. Hind limb reaching the posterior border of the orbit; foot 1⅓ times as long as the head; digits flattened.

Upper head-shields smooth; nasals in contact behind the rostral, the suture between them ½ the length of the frontonasal, which is broader than long; prefrontals a little broader than long, forming a median suture; frontal nearly as long as its distance from the end of the snout, twice as long as broad, narrow behind, grooved in front; parietals much broader than long; interparietal a little smaller than the frontoparietals; no occipital. Three large supraoculars, forming sutures with each other, first in contact with the first superciliary, the second loreal, the prefrontal, and the frontal; two or three minute granules between the first and second supraoculars; a small band-like fourth supraocular, separated from the third by granules; second and third supraoculars separated from the frontal and from the superciliaries by a series of granules; 7 superciliaries, first longest. Rostral as deep as broad, narrower beneath than above; lower nasal not reaching the rostral, resting on the three anterior upper labials; anterior loreal a little longer than deep, shorter than the second; subocular strongly keeled below the eye, resting on the 5th to 7th upper labials. Temporal scales granular, smooth; no tympanic shield; no auricular denticulation.

5 pairs of chin-shields, the 3 anterior in contact in the middle; 24 gular scales on a line between the symphysis of the chin-shields and the median collar-plate; no gular fold. Collar straight, 8 of the marginal scales feebly enlarged.

Scales granular, smooth, 80 across the middle of the body. Ventral plates as long as broad or longer than broad, in oblique longitudinal series; 35 transverse series, the longest of which contain 20 plates. A large preanal plate, about twice as broad as long.

Upper surface of arm with rounded smooth scales, a little larger than the gulars. Upper surface of tibia covered with granular scales similar to the dorsals; lower surface with one row of large and one of small plates. 15 or 17 femoral pores on each side. Fingers and toes with 4 series of scales, strongly fringed on both sides; subdigital lamellæ smooth or indistinctly keeled, 20 under the fourth toe; ungual lamella with wing-like lateral expansion.

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Caudal scales narrow, feebly keeled, the dorsal granules extending for some distance along the middle of the tail; 56 scales in the fifth whorl behind the postanal granules.

Sand-coloured above, with a blackish network; head with symmetrical black markings. Lower parts white.

Measurements (in millimetres):

From end of snout to vent	35
,, ,, ,, fore limb	15
Length of head	10
Width of head	6·5
Depth of head	4·5
Fore limb	14
Hind limb	25
Foot	13

This species is known from a single young specimen, from between Nushki and the Helmand, Northern Baluchistan.

10. SCAPTIRA PERSICA.

Scapteira persica, Nikolsky, Ann. Mus. Zool. St. Pétersb. iv, 1899, p. 395, pl. x, fig.

Form as in *S. acutirostris*, but hind limb reaching only the collar, or between the collar and the ear, and parietals as long as broad. Nasals swollen, lower not reaching the rostral. Frontal as long as its distance from the end of the snout. Occipital very small or absent. A small anterior supraocular, separated from the frontal and from the large supraocular by a series of granules. Subocular not reaching the mouth. 2 to 5 obtuse lobules on the anterior border of the ear. Collar hardly curved, with 10 to 13 small plates.

Scales granular, smooth. Ventral plates in 37 to 39 transverse series, the longest containing 20 plates. No enlarged preanals. 17 or 18 femoral pores on each side. Upper caudal scales strongly keeled.

Bluish grey above, reticulated with black; head rufous, spotted with black; lower parts white.

Total length 165 millim.

Habitat.—Tscharachs, Zirckuch district, Eastern Persia.

This species is only known to me from Nikolsky's description, based on 8 specimens preserved in the Petrograd Museum.

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11. SCAPTIRA GRAMMICA.

Lacerta grammica, Lichtenst. in Eversm. Reise, p. 140 (1823).

Lacerta grammica, part., Lichtenst. Verz. Doubl. Mus. Berl. p. 100 (1823).

Scapteira grammica, Wiegm. Herp. Mex. p. 9 (1834); Dum. & Bibr. Erp. Gén. v, p. 283, pl. liv, fig. 1 (1839); Gray, Cat. Liz. p. 32 (1845); Peters, Mon. Berl. Ac. 1869, p. 61; Bouleng. Cat. Liz. iii, p. 113 (1887); Boettg. Zool. Jahrb. iii, 1888, p. 912; Zander, Zool. Gart. xxxvi. 1896, p. 327; Nikolsky, Fedtschenko's Reise, Zool. ii, part vii, p. 39, pl. vii, fig. 1 (1899); Elpatiebski, Amph. Rept. Aral Exped. p. 21 (1903); Nikolsky, Herp. Ross. p. 173 (1905).

Podarces (Scapteira) grammica, Strauch, Mél. Biol. Ac. St. Pétersb. vi, 1867, p. 409.

Head and body rather depressed. Head $1\frac{3}{5}$ to $1\frac{2}{3}$ times as long as broad, its length $3\frac{3}{4}$ to 4 times in length to vent, its depth equal to the distance between the centre of the eye and the tympanum; snout acutely pointed, with swollen nasals, $1\frac{1}{2}$ times as long as the post-ocular part of the head; canthus rostralis sharp, loreal region vertical, slightly concave. Pileus 2 to $2\frac{1}{4}$ times as long as broad. Hind limb reaching the shoulder, the collar, or between the collar and the ear; foot $1\frac{1}{5}$ to $1\frac{1}{4}$ times the length of the head; toes long, flattened. Tail not quite twice as long as head and body, depressed at the base.

Upper head-shields smooth or more or less rugose; rostral a little deeper than broad, narrower beneath than above; nasals in contact behind the rostral, the suture between them $\frac{1}{3}$ to $\frac{1}{2}$ the length of the frontonasal, which is broader than long; prefrontals longer than broad, forming an extensive median suture; frontal as long as its distance from the nasals, $1\frac{2}{3}$ to 2 times as long as broad, narrow behind, grooved in front; parietals broader than long; interparietal smaller than the frontoparietals, followed by a series of granular shields separating the parietals.* Two large supraoculars, preceded by granules and small shields, one of which may be termed a first supraocular, but always separated from the large shields by a series of granules; a small, band-like posterior supraocular, separated from the preceding by a series of granules; a series of granular scales on the inner and outer borders of the two large supraoculars; 6 to 8 superciliaries, first longest. Lower nasal not reaching the rostral, resting on the three anterior upper labials; anterior loreal longer than deep or deeper than long, shorter than the second; subocular

* These may be absent, according to Boettger, and Zander could find no trace of an occipital in the 8 Transcaspian specimens examined by him.

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strongly keeled below the eye, resting on the 6th and 7th, 6th to 8th, or 7th to 9th upper labials. One or several upper temporals, if several the last the largest; temporal scales granular, smooth; tympanic shield usually present; anterior border of ear not denticulated, or with a few projecting granules.

6 or 7 pairs of chin-shields, the 3 anterior in contact in the middle; 31 to 35 gular scales on a line between the symphysis of the chin-shields and the median collar-plate; no gular fold. Collar nearly straight, the marginal scales scarcely enlarged, or only a few of the median enlarged into small plates.

Scales granular, smooth or feebly keeled, larger on the sides, 50 to 63 across the middle of the body. Ventral plates longer than broad, tessellated or forming oblique longitudinal series, in 39 to 42 transverse series, the longest containing 20 or 22* plates. Preanal region covered with small irregular plates.

Upper surface of arm with rhombic, obtusely keeled scales. Upper surface of tibia with small granular scales; lower surface with 4 or 5 series of plates, the outer largest. 15 to 19 femoral pores on each side. Fingers and toes with 4 series of scales, strongly fringed on both sides, more on the outer than on the inner; subdigital lamellæ smooth, 20 to 22 under the fourth toe; ungual lamella with a wing-like lateral expansion.

Caudal scales small, narrow, feebly or rather strongly keeled, the dorsal granules extending for some distance along the middle of the tail; 30 to 56 scales in the fourth or fifth whorl behind the postanal granules.

Pale greyish above, with black dots and a dark grey or reddish-brown network, enclosing very numerous round light spots. Lower parts white.

Measurements (in millimetres):

	1.	2.	3.
From end of snout to vent	76	66	56
,, ,, ,, fore limb	30	26	22
Length of head	18	17	14
Width of head	12	11	9
Depth of head	9	8	7
Fore limb	26	23	20
Hind limb	45	40	33
Foot	24	21	19
Tail	—	110	88

1. ♂, R. Morgab. 2. ♂, R. Ili. 3. ♀, R. Lepsa.

* Or 24, according to Boettger.

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Reaches a length of 87 millim. from snout to vent, tail 151, according to Boettger. The figure in Fedtschenko's Reise represents a specimen 105 millim. long from snout to vent.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
♂ R. Ili	66	59	20	39	22	34	16–15	20	7
♀ R. Lepsa	56	63	22	40	18	34	17	20	8
Yg. „	36	60	22	42	23	31	16–17	21	7
Hgr. Michailovo, Transcaspia	45	56	22	40	16	35	18–19	21	7
♂ Molle Kary „	65	50	20	40	18	33	18–17	22	7
„ Lower Morgab „	76	50	22	40	20	34	18	21	7–8

Habitat.—Aralo-Caspian Steppes, Transcaspia, Bokhara, and Russian Turkestan.

20. MACMAHONIA.

Macmahonia, Bouleng. Journ. Zool. Res. iii, 1918, p. 2.

Differing from *Scaptira*, s. str., only in the absence of femoral pores.

A single species.

1. MACMAHONIA APOROSCELES.

Scaptira aporosceles, Alcock & Finn, Journ. As. Soc. Beng. lxv, ii, 1896, p. 559, pl. xiii.

Head and body depressed. Head $1\frac{3}{5}$ to $1\frac{2}{3}$ times as long as broad, its length $3\frac{2}{3}$ to 4 times in length to vent, its depth equal to the distance between the centre of the eye and the tympanum. Snout acutely pointed, with slightly swollen nasals, a little longer than the postocular part of the head; canthus rostralis sharp, loreal region vertical, slightly concave. Pileus twice as long as broad. Hind limb reaching between the ear and the eye or between the collar and the ear*; foot $1\frac{1}{4}$ to $1\frac{1}{3}$ times the length of the head; toes long, flattened. Tail $1\frac{1}{2}$ to 2 times as long as head and body, depressed at the base.

Upper head-shields smooth; rostral slightly deeper than broad, narrower beneath than above; nasals in contact behind the rostral, the suture between them $\frac{1}{2}$ to $\frac{3}{4}$ the length of the frontonasal, which

* Or the eye, according to Alcock and Finn.

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is much broader than long*; prefrontals as long as broad or longer than broad, forming an extensive median suture; frontal as long as its distance from the nasals, 1⅔ to 2 times as long as broad, narrow behind, deeply grooved along the middle; parietals much broader than long, meeting behind the interparietal, which is nearly as large as or smaller than the frontoparietals; no occipital. Three large supraoculars, forming sutures with each other, the first nearly as long as the second and in contact with the first superciliary, the second loreal, the prefrontal, and usually the frontal; a small, band-like fourth supraocular; a series of granules on the inner, outer and posterior side of the larger pair of supraoculars, the series sometimes double behind; 6 to 8 superciliaries, first longest. Lower nasal not reaching the rostral, resting on the three anterior upper labials; anterior loreal as long as deep or longer than deep, shorter than the second; subocular strongly keeled below the eye, resting on the 6th to 8th (rarely 5th to 7th) upper labials. Temporal scales granular, smooth, a little larger beneath; no tympanic shield; no auricular denticulation.

4 or 5 pairs of chin-shields, the 3† anterior in contact in the middle. 27 or 28 gular scales on a line between the symphysis of the chin-shields and the median collar-plate; no gular fold. Collar nearly straight, only a few of the median scales feebly enlarged.

Scales granular, smooth, 68 to 82 across the middle of the body. Ventral plates as long as broad or a little longer than broad, tessellated or in oblique longitudinal series, in 35 to 37 transverse series, the longest of which contain 20 to 24 plates. A rather small preanal plate, sometimes divided longitudinally.

Upper surface of arm with rhombic smooth scales, which are a little larger than the largest gulars. Upper surface of tibia with minute granules; lower surface with one row of large and 2 or 3 of small plates. Fingers and toes strongly fringed on both sides; 3 series of scales round the fingers, the outer fringe formed by the upper series, 4 round the toes; subdigital lamellæ smooth or feebly keeled, 20 to 23 under the fourth toe; ungual lamella with a wing-like lateral expansion.

Caudal scales small, truncate, smooth or feebly keeled, the dorsal granules extending for some distance along the middle of the tail.

Brownish yellow above in life, with very numerous lighter circular spots; a more or less distinct dark streak along the side of the tail. Lower parts white.

* Unless divided into three shields.

† Sometimes 2 according to Alcock and Finn.

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Measurements of males (in millimetres) :

From end of snout to vent . . .	62	57	55
,, ,, ,, fore limb . .	25	20	21
Length of head	16	16	15
Width of head	10	9·5	9
Depth of head	8	8	8
Fore limb	25	22	22
Hind limb	44	39	32
Foot	22	20	20

Particulars of Specimens Examined.

	1.	2	3.	4.	5.	6.	7.
♂, Type . . .	62	75	22	36	33	22	7
,, ,, .	61	73	20	35	31	21	6–7
,, ,, . . .	57	76	22	35	28	21	7
,, ,, . . .	55	75	24	36	31	22	7
,, ,, . . .	44	82	22	37	27	23	7
,, ,, . . .	44	68	24	35	25	20	7

1. Length from snout to vent (in millimetres). 2. Scales across middle of body. 3. Ventral plates in longest transverse series. 4 Transverse series of ventral plates. 5. Scales in collar. 6. Lamellar scales under fourth toe. 7. Upper labials to below centre of eye.

Habitat.—West of Robat I., on the limit between Baluchistan and Afghanistan, where the lizard was found in abundance by the Members of the Afghan-Baluch Boundary Commission of 1896, after one of whom, Sir A. H. McMahon, the genus has been named.

21. APOROSAURA.

Pachyrhynchus (non Spix), Bocage, Ann. & Mag. N. H. (3) xx, 1867, p. 226; Strauch, Mél. Biol. Ac. St. Pétersb. vi, 1867, p. 408; Lataste, Ann. Mus. Genova (2) ii, 1885, p. 126; Bocage, Herp. Angola, p. 33 (1895).

Aporosaura, Bouleng. Cat. Liz. iii, p. 117 (1887).

Head wide and flattened; snout much depressed, wide, spatulate, with trenchant margins greatly exceeding the outline of the mouth. Head-shields normal, but no occipital. Nostril pierced between three nasals, widely separated from the first upper labial. Lower eyelid scaly. No collar. Dorsal scales granular. Ventral plates

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smooth. Digits compressed, with smooth scales beneath, denticulated laterally. No femoral pores. Tail long, cylindrical.

A single species.

This genus is to be regarded as an exaggerated form of the representatives of the section *Saurites* in the genus *Scaptira*, from which it is evidently derived, as *Macmahonia* is derived from *Scaptira*, s. str.; but the generic differentiation is greater than in *Macmahonia*, for, in addition to the loss of the femoral pores, the collar has disappeared, and the head has assumed an extraordinary shape.

1. APOROSAURA ANCHIETÆ.

Pachyrhynchus anchietæ, Bocage, ll. cc. p. 227, fig., and p. 33, pl. iii, fig. 1.

Aporosaura anchietæ, Bouleng. l.c.; Werner, Jen. Denkschr. xvi, 1910, p. 340.

Head large, $3\frac{1}{4}$ times in length to vent. Rostral much depressed, forming with the first seven upper labials the projecting border of the snout; nasals in contact behind the rostral; frontonasal a little broader than long; prefrontals forming a median suture; frontal narrow, shorter than its distance from the end of the snout; parietals nearly twice as broad as long, separated from each other by the interparietal, which is smaller than the frontoparietals. Three large supraoculars, the first with a small detached shield on the inner side. Lower nasal not reaching the rostral, resting on the first and second upper labials; anterior loreal larger than the second; suboeular resting on the 5th to 7th upper labials; temporal scales granular; ear-opening narrow, without marginal denticulation.

6 pairs of chin-shields, the three anterior in contact in the middle; gular scales very small, granular.

Scales extremely small, granular, larger on the lower part of the sides and passing gradually into the ventral plates, which are small, square, and number 20 to 24 in a transverse series. Preanal scales numerous, small, subequal.

Scales on the flattened base of the tail similar to the dorsals, those on the rounded portion elongate quadrangular and feebly keeled.

The type is described as golden yellow above, with a wide-meshed black network on the back and limbs; a black vertebral streak; head variegated with black; an elongate black spot on the occiput; a black

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line along the side of the tail; lower parts white. In the specimens examined by Werner there are black spots on the sides of the tail, which may extend to the upper surface to form cross-bars.

Total length 112 millim., in which the head enters for 17, and the tail for 57; fore limb 21, hind limb 42.

Habitat.—The unique type is from Rio Croco, coast of Mossamedes. Werner has since recorded several specimens from Walfish Bay, Damaraland.

The above account is compiled from Bocage's description and figure.

22. HOLASPIS.

Holaspis (A. Smith), Gray, Proc. Zool. Soc. 1863, p. 152; Lataste, Ann. Mus. Genova (2) ii, 1885, p. 125; Bouleng. Cat. Liz. iii, p. 118 (1887).

No frontoparietals, through fusion with the interparietal, which forms a large shield in contact with the frontal and the occipital. Nostril pierced between two nasals, narrowly separated from the first upper labial. Lower eyelid scaly, with 3 to 5 enlarged, semitransparent scales in the middle. Collar well marked. Two series of large, smooth, transverse plates along the nape, back and tail; lateral scales small; ventral plates not imbricate, smooth. Fingers nearly cylindrical; toes depressed and serrated laterally in their basal half, the distal half feebly compressed and forming an angle; subdigital lamellæ smooth. Femoral pores. Tail much depressed and serrated laterally.

Tropical Africa.

Parietal foramen and pterygoid teeth absent.

Holaspis is a highly specialized form, occupying an isolated position in the family Lacertidæ. It is probably derived from less aberrant forms connected with *Philochortus*, which I regard as its nearest though very remote living relative.

1. HOLASPIS GUENTHERI.

Holaspis guentheri (A. Smith), Gray, t.c. p. 153, pl. xx, fig. 1; F. Müll. Verh. Naturf. Ges. Basel, vii, 1885, p. 702; Bouleng. l.c.;

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Matschie, Sitzb. Ges. Naturf. Fr. Berl. 1892, p. 110; Tornier, Thierw. O.-Afr., Kriechth. p. 40 (1897); Bethencourt Ferreira, Jorn. Sc. Lisb. (2) v, 1898, p. 242; Tornier, Zool. Jahrb., Syst. xiii, 1900, p. 593, and xv, 1902, p. 582; Nieden, Mitt. Zool. Mus. Berl. vii, 1913, p. 79; Schmidt, Bull. Amer. Mus. N. H. xxxix, 1919, p. 515, fig., pl. xxiii, fig. 2.

Holaspis guentheri, subsp. *lævis*, Werner, Verh. Zool.-bot. Ges. Wien, xiv, 1895, p. 91, pl. v, fig. 4.

Head, body and tail extremely depressed. Head $1\frac{3}{4}$ to 2 times as long as broad, its depth equal to the distance between the eye and the tympanum, its length $3\frac{4}{5}$ to 4 times in length to vent in males, 4 to $4\frac{1}{2}$ times in females; snout pointed, as long as postocular part of head, with obtuse canthus. Pileus $2\frac{1}{4}$ to $2\frac{1}{3}$ times as long as broad. Neck as broad as or a little broader than the head. Hind limb reaching the elbow or the axil in males, the wrist or the elbow in females; foot as long as the head or a little shorter; fourth toe but little longer than third. Tail $1\frac{1}{5}$ to $1\frac{1}{2}$ times as long as head and body.

Nostril pierced between two shields, widely separated from the rostral; frontonasal large, as long as broad or a little longer than broad, forming a broad suture with the rostral; prefrontals forming a median suture; frontal rather small, as long as or a little shorter than its distance from the rostral, $1\frac{3}{5}$ to 2 times as long as broad, a little narrower behind than in front; parietals $1\frac{1}{4}$ to $1\frac{1}{2}$ times as long as broad; interparietal very large, 3 to 4 times as broad as the posterior part of the frontal, in contact with a rather small trapezoid occipital. 4 large supraoculars* subequal in length or second the longest, first in contact with the frontal; superciliaries very small, separated from the second and third supraoculars by a series of very small granules. Anterior loreal as long as or shorter than the second; 4, exceptionally 5, upper labials anterior to the suboocular, which is as long beneath as above. Temple covered with minute granules; a large tympanic shield, preceded by one or several enlarged scales.

5 pairs of chin-shields, first three in contact in the middle; gular scales juxtaposed, 27 to 37 between the symphysis of the chin-shields and the median collar-plate; no gular fold. Collar with even edge, composed of 7 to 14 rather small plates.

The two series of large dorsal plates originating a short distance behind the occiput; each plate about twice as broad as long; lateral

* In a female from the Gaboon there are 5 supraoculars on the right side, the fourth being divided into two.

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scales very small, longer than broad, smooth or feebly keeled; 62 to 84 plates and scales across the middle of the body. Ventral plates quadrangular, the transverse series with rectilinear border, in 6 longitudinal and 25 to 31 transverse series. A moderately large preanal plate, bordered by a semicircle of smaller plates, the median of which is sometimes transversely enlarged.

A series of transversely enlarged plates on the upper surface of the fore limb; upper surface of hind limb with small granular scales. 16 to 24 femoral pores on each side, the two series sometimes meeting in the middle. 16 to 20 lamellæ under the fourth toe.

Nearly the whole of the tail occupied by a double series of large transverse plates, above and below, usually longer and shorter alternately, the lateral edge with large triangular curved scales forming a strong serration; on the basal part of the tail, a series of small scales intervenes between the large plate and the scales forming the lateral serration.*

Black above, the head with three yellowish longitudinal streaks, the median extending from the rostral to the occipital or a little prolonged on the nape and expanded on the frontal, the lateral narrower, originating on the first supraocular and extending on the parietal, converging towards its fellow to approximate it on the nape and continued on the body; 6 yellowish or bluish-green streaks on the body, the median pair broadest, nearly as broad as or much narrower than the space between them, and uniting on the tail; the two other streaks on each side starting from behind the eye and from the upper lip respectively, then sometimes extending on the fore limb. In the specimen from Usambara (subsp. *lævis*, Werner), and in the one from Zomba, there is only one light lateral streak, proceeding from the upper lip, quite as broad as the dorsal. Hind limbs greenish above, sometimes spotted with black, and with black base in front. Tail blue above and beneath, with black bars or cross-lines, above with two black longitudinal streaks. Lower parts greenish blue, blue, bluish grey, or greyish white.†

According to Tornier the belly is sometimes black in the young.

Measurements (in millimetres):

	1.	2.	3.	4.
From end of snout to vent . .	51	51	49	46
„ „ „ fore limb .	21	20	19	18
Length of head	14	13	12	11
Width of head	8	7	7	6
Depth of head	4·5	4	4	3·5

* The scaling of the regenerated tail does not differ.

† Belly orange in life, according to Schmidt.

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	1.	2.	3.	4.
Fore limb	20	18	17	14
Hind limb	28	24	22	21
Foot	13	12	11	10
Tail	78	—	70	58

1. ♂, Usambara. 2. ♂, Efulen. 3. ♀, Zomba. 4. ♀, Caconda.

Particulars of Specimens Examined.

	1.	2.	3.	4.	5.	6.	7.
♀ Type	39	82	29	9	33	22–23	16
♂ Usambara, Tanganyika Terr. .	51	84	29	14	37	22–24	20
♀ Zomba, Nyassaland . . .	49	76	31	9	37	22	20
♂ Sierra Leone	50	74	26	10	30	21	19
♀ ,, ...	36	80	28	10	30	21	18
,, Abo, S. Nigeria . . .	42	65	27	12	29	23	17
,, Oban, Calabar	53	64	28	9	29	20	20
♂ Efulen, S. Cameroon . .	51	79	26	10	33	22–21	18
,, ,, ,, . .	48	75	28	8	28	21–20	17
,, ,, ,, . .	42	82	25	9	28	22	16
,, Benito R., Spanish Guinea .	40	78	29	10	35	22–23	18
♀ ,, ,, .	50	62	29	11	28	20–21	16
,, ,, ,, .	48	73	28	10	30	23	17
,, ,, ,, .	46	65	27	9	27	20–21	18
,, ,, ,, .	42	63	28	9	30	21–20	18
♂ Gaboon, **P.M.**	45	69	27	9	34	21	18
,, ,, ,, ...	38	70	27	10	25	22	18
♀ ,, ,, ...	43	69	27	7	27	22–21	18
♂ French Congo, **P.M.** . .	49	76	25	9	29	22–21	18
♀ Caconda, Benguella . . .	46	68	28	10	27	16–17	17
,, ,, ,, . . .	46	66	29	10	30	17–19	19

1. Length from snout to vent (in millimetres). 2. Scales and plates across middle of body. 3. Transverse series of ventral plates. 4. Plates in collar. 5. Gular scales in a straight line between symphysis of chin-shields and median collar-plate. 6. Femoral pores (right and left if differing in number). 7. Lamellar scales under fourth toe.

Habitat.—Tropical Africa, from the Gold Coast and Lake Victoria to Angola, Nyassaland, and the Coast of East Africa.

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LIST OF THE SPECIMENS IN THE BRITISH MUSEUM.*

Nucras emini, Blgr.

1. ♂, type	S. shore of L. Victoria	Dr. Emin Pasha.
2. ♂	Loika, B.E.A.	W. P. Lowe, Esq.

Nucras delalandii, M.-Edw.

1–3, 4. ♂, ♀	S. Africa	Sir A. Smith.
5–6, 7. ♂, ♀ and yg.	„	
8. ♂	Port Elizabeth	J. M. Leslie, Esq.
9–10. ♀	„	J. L. Drege, Esq.
11. ♂	„	— Moorhouse, Esq.
12–14. ♀ and hgr.	„	F. W. FitzSimons, Esq.
15. ♀	Peri Bush, King William's Town.	Major H. Trevelyan.
16. ♂	„ „	A. W. Stenning, Esq.
17. ♀	East London	H. S. Thorne, Esq.
18. Yg.	„	— Wood, Esq.
19. ♂	E. Districts of Cape Colony	J. P. M. Weale, Esq.
20. ♂	Van Reenen, Natal	W. G. Rump, Esq.
21. ♂	Natal	Dr. Gibb.
22. ♀	Sibudeni, Zululand	C. Grant, Esq.
23. ♀	Lessouto, Basutoland	M. Cazalis (Lataste Coll.).
24–25. ♂, ♀	Krugersdorp, Transvaal	Major Gilliat.
26. ♂	Barberton, „	
27. ♂	Damaraland.	

Nucras intertexta, A. Smith.

Forma typica.

1. ♀, type	Latakoo, near Kuruman	Sir A. Smith.
2. Hgr.	Kokong, near Lehututa, Bechuanaland, 3300 f.	R. B. Woosnam, Esq.
3. ♂	Rustenburg, Transvaal	W. Ayres, Esq.
4–6. ♀ and yg.	Pietersburg, „	

Var. holubi, Stdr.

1. Hgr.	S. Africa	Sir A. Smith.
2. ♂	Port Elizabeth	J. L. Drege, Esq.
3. ♀	„	F. W. FitzSimons, Esq.

* Nearly 5000 specimens are comprised in this list.

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4. ♂	Burgersdorp, Cape Col.	Dr. D. R. Kannemeyer.
5–9. ♂, ♀	Vredefort Road, O.R. Col.	Capt. Barrett-Hamilton.
10–12. ♂ and yg.	Umfolosi R., Zululand	Dr. E. Warren.
13. ♀	De Kaap Goldfields, Transvaal	Dr. P. Rendall.
14. Yg.	Pretoria, Transvaal	W. L. Distant, Esq.
15–16. ♂, ♀	Barberton, „	
17. ♂	Rustenburg, „	W. Ayres, Esq.
18–19. ♀	Lydenburg, „	F. W. Armstrong, Esq.
20. ♀	Zoutpansberg, „	J. P. Crozer, Esq.
21–22. ♂ and yg.	Bulawayo, S. Rhodesia	Rhodesia Museum.
23–24. ♂, ♀	L. Nyassa.	
25–26. ♂, ♀	Dongwenna, Mossamedes	Dr. W. J. Ansorge.

Nucras tessellata, A. Smith.

1. ♂, type	Eastern parts of Cape Colony	Sir A. Smith.
2–4. ♂, ♀, types of *L. livida*	N. parts of Cape Colony	„
5–6. ♀, types of *L. elegans*	Little Namaqualand	„
7–8. ♀ and yg., types of *L. tæniolata*	Cape Colony	„
9–10, 11. ♂, ♀	Little Namaqualand	Dr. L. Péringuey.
12. ♀	Guires, Little Namaqualand.	
13. ♂	Klipfontein, „	C. Grant, Esq.
14. ♂	Deelfontein, Cape Colony	Sir A. T. Sloggett.
15–16. Yg.	Clanwilliam, W. Cape Col.	Rev. C. L. Leipoldt.
17. Yg., type of *T. ornata*	Zambesi	Sir J. Kirk.
18. Yg.	S. Africa.	

Lacerta agilis, L.

Forma typica.

1. ♀	Odensjö, Småland, Sweden	Prof. E. Lönnberg.
2–5. ♂, ♀	Southport, Lancashire	L. Greening, Esq.
6–10. ♂, ♀	„ „	Dr. G. Leighton.
11. ♂	„ „	O. Grieg, Esq.
12. ♀	Studland Heath, near Swanage, Dorset	H. N. Ridley, Esq.
13–14. ♂, ♀	Poole Heath, Dorset	W. Thompson, Esq.
15–16. ♂	Bournemouth, Hampshire	G. A. Boulenger, Esq.
17. ♀	Ringwood, „	W. Dick, Esq.
18–19. ♂, ♀	Near Farnham, Surrey	Bryan Hook, Esq.
20–21. ♂	Frensham Common, near Farnham	G. A. Boulenger, Esq.

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22. ♂ . . . Devil's Jumps, near Farnham . . E. Britten, Esq.
23–25. ♂, ♀ and yg. Churt, Surrey . . . . . „
26–27. ♀ and yg. . Tilford, „ . . . . . „
28–29. ♂, ♀. . . Paris . . . . . M. F. Lataste (Lataste Coll.).
30 Hgr. . . . „ . . . . . M. Dupras „
31–32. Yg. . . Rambouillet, near Paris . . . M. E. Simon „
33. ♀ . . . Sénart, „ . . . M. F. Lataste „
34. Hgr. . . Cornimont, Vosges . . . . „ „
35. ♀ . . . La Roche-en-Breil, Côte-d'Or . . Comte X. de Grunne.
36–37. ♂, ♀ . . La Bourboule, Puy-de-Dôme. . . M. G. F. de Witte.
38. ♂ . . . Puy-de-Dôme. . . . . M. F. Lataste (Lataste Coll.).
39. ♀ . . . Ax-les-Thermes, Ariège . . G. S. Miller, Esq.
40. ♀ . . . Porté, Pyrénées-Orientales . . . „
41–42. ♂, ♀ . . Arlon, Belgium . . . . Rev. G. Fournier.
43–56. ♀ and yg. . Mondorf, Luxemburg . . . G. A. Boulenger, Esq.
57–70. ♂, ♀ and yg. Binningen, near Basle . . . Dr. J. Roux.
71–77. ♂, ♀ and yg. Lausanne . . . . . W. Morton, Esq.
78. Yg. . . . Gryon, Vaud, 4000 f. . . . Mrs. Watson.
79–84. ♂, ♀ and yg. Düsseldorf . . . . . W. F. Kirby, Esq.
85–89. Yg. . . Baden-Baden . . . . . G. A. Boulenger, Esq.
90–93. ♂ . . Freiburg, Baden . . . . . „
94–95. ♂ . . Höllsteig, Baden, 2430 f. . . . „
96–105, 106. ♂, ♀ and hgr. . . Berlin . . . . . „
107–111, 112–113. ♂, ♀ . . . Dresden . . . . . „
114–120. ♂, ♀ . Prague . . . . . Hr. V. Fritsch.
121–127, 128–131. ♂, ♀ and yg. . Vienna . . . . . Dr. F. Werner.
132–133. ♀ . . Budapest . . . . . M. G. de Southoff.
134. ♀ . . . Varpalanka, Beregszasz, E. Czecho-Slovakia . . . . . Prof. L. von Méhely.
135. ♀ . . . Bazias, Roumania . . . . „
136–137. ♂, ♀ . Nagyszeben, Roumania . . . „
138–139. ♂, ♀ . Brasso, „ . . . „
140. ♂ . . . Transylvania . . . . . C. G. Danford, Esq.
141. ♀ . . . Sinaia, Carpathians, Roumania . . M. A. Montandon.

Var. SPINALIS, Wern.

1. ♀ . . . Bosnia . . . . . Dr. C. Floericke.
2. ♀ . . Babaplanina, Herzegovina, 4500 f. . Dr. F. Werner.

Var. CHERSONENSIS, Andrzej.

1–3. ♂ . . . Kieff . . . . . Petrograd Museum.
4–15. ♂, ♀ and yg. Zorleni, Burlad Valley, Moldavia. . M. A. Montandon.

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16–17, 18. ♂, ♀ and yg. . . Bukarest . . . . . M. A. Montandon.
19. Yg. . . . Lacu Sarat, Roumania . . . . „
20. ♀ . . . St. George, Danube Delta . . . „

Var. EXIGUA, Eichw.

1–2. ♀ . . . Moscow . . . . . Moscow University.
3–4. ♂ and yg . Chareov . . . . . Petrograd Museum.
5–6. ♂ . . . Saratov . . . . . „
7–8. ♂ and yg. . Dongus, near Orenburg . . . „
9. ♂ . . . Ural . . . . . „
10. ♀ . . . Astrakan . . . . . „
11. ♀ . . . Vladikaukas, Caucasus . . . . „
12–13. ♂, types of *L. paradoxa* . Sukhum Kale, Caucasus . . . Dr. J. de Bedriaga.
14. ♀ . . . Novorossik, W. Caucasus . . . Dr. G. Radde.
15. Yg. . . . Tiflis . . . . . „
16–20. ♂, ♀ . Ielenovka, L. Gokcha . . . Petrograd Museum.
21. ♂ . . . Batum, Transcaucasia . . . Dr. G. Radde.
22. ♂ . . . Van, Kurdistan . . . . Lyons Museum.
23. ♂ . . . Kirghiz Steppes . . . . Petrograd Museum.
24. ♂ . . . Ilek R. . . . . „
25–27. ♂, ♀ and hgr. . . . Altyn-Emel, between Kopal and Vernoje . . . . . „
28–30. ♂, ♀ . Kunges R., S. of Kulja . . . „
31. Yg. . . . Upper Ili . . . . . „
32–39. ♂, ♀ and hgr. . . . Lepsinskaja Staniza . . . . „
40–42. ♂ and yg. . Between Semipolatinsk and Ajagus . „
43–44. ♀ and yg. . Arcat Mts., near Semipolatinsk . . „
45–47. ♂, ♀ and yg. . . . L. Ourkatsch, Tourgaisk . . . „
48–49. ♀ . . Tomsk . . . . . „
50. ♀ . . . Minnusinsk, Yenissei . . . . „
51–52. ♂ . . Ala Tau . . . . . „
53–55. ♂, ♀ and hgr. . . . Lepsa, Ala Tau . . . . . „
56–59. ♂, ♀ . „ „ „ (Lataste Coll.).
60–64. ♀ and yg. . Tian Shan Mts. . . . . Lord Rothschild.
65–72. ♀ and hgr. Kanaika R., Altai Mts. . . . . Mr. M. E. Meyer.

LACERTA PARVA, Blgr.

1. ♀, type . . Kaisarieh, Asia Minor . . . C. G. Danford, Esq.
2–4. ♂, ♀ . . Sari Keny, „ . . . Dr. F. Werner.
5–7. ♂ . . . Berchetti Mandam, Antitaurus . . Hr. M. Holtz.
8–13. ♂, ♀ . . Angora . . . . . M. H. Gadeau de Kerville.

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Lacerta viridis, Laur.

Forma typica.

1–3. ♂, ♀ and yg. La Corbière, Jersey . . . . E. Britten, Esq.
4–16. ♂, ♀ . . Jersey . . . . . Sinel & Co.
17–21. ♂, ♀ and yg. . . . „ . . . . . E. Spencer, Esq.
22. ♂ . . . Fermain Bay, Guernsey . . . E. Britten, Esq.
23–24, 25–26. ♀ . Near St. Malo . . . . G. A. Boulenger, Esq.
27. Yg. . . . St. Briac, Côtes-du-Nord . . . W. M. Daly, Esq.
28. Yg. . . . Ploumanach, „ . . . G. A. Boulenger, Esq.
29–35. ♂, ♀ and yg. . . . St. Epain, Indre-et-Loire . . . M. P. Chabanaud.
36. ♀ . . . Lignières-Sonneville, Charente . . M. H. Giraudeau.
37–39. ♀ . . Oléron Id. . . . . M. P. Chabanaud.
40–41. ♀ and yg. Cadillac, Gironde . . . . M. F. Lataste.
42. Hgr. . . „ „ . . . . M. Barrère (Lataste Coll.).
43, 44. ♀ and hgr. Biganos, „ . . . . M. F. Lataste „
45. ♀ . . . Langoiran, „ . . . . M. Fitt „
46. Yg. . . . Arlac, „ . . . . M. F. Lataste „
47. ♂ . . . Soulac, „ . . . . M. Collin de Plancy (Lataste Coll.).
48. ♀ . . . Verrières, near Paris . . . M. F. Lataste „
49. ♀ . . . Fontainebleau . . . . „ „
50. ♂ . . . „ . . . . M. E. Taton „
51. ♀ . . . „ . . . . M. Collin de Plancy (Lataste Coll.).
52. ♂ . . . Uriage, Isère . . . . . M. A. Dollfus.
53. ♂ . . . Montpellier . . . . . Prof. Dubosc.q.
54. ♀ . . . „ . . . . . M. Valery-Mayet (Lataste Coll.).
55–61. ♂, ♀ . . Valdeblore, Alpes-Maritimes, 1000 m. . M. P. Chabanaud.
62–64. ♀ . . Cannes . . . . . M. G. F. de Witte.
65. ♂ . . . Hernani, Guipuzcoa, Spain . . . E. Britten, Esq.
66. ♀ . . . Forte Ratti, Genoa . . . . Sig. Lugajolli.
67. Yg. . . . Genoa . . . . . Hr. Jeitteles.
68. ♀ . . . Stegnoni, Spezia . . . . Marquis G. Doria.
69–79. ♂, ♀ . Turin . . . . . Prof. Bonelli.
80. ♂ . . . „ . . . . . Lord A. Russell.
81–85. ♂, ♀ and yg. . . . Verona . . . . . Sig. E. de Betta.
86–88. ♀ . . Bozen, S. Tyrol . . . . Hr. A. Mulser.
89–90. Yg. . . Florence . . . . . M. G. de Southoff.
91. ♂ . . . Perugia . . . . . W. C. Trevelyan, Esq.

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92. Yg.	Elba	W. C. Trevelyan, Esq.
93–97. ♂, ♀ and yg.	Castelfranco, Ostia	Dr. L. W. Sambon.
98–99. ♀	Lecce, Otranto	Florence Museum.
100–102. ♂	Modica, Sicily	„
103–107. ♂, ♀	Prague	Hr. V. Fritsch.
108. ♂	Vöslau, Lower Austria	Dr. F. Werner.
109. ♂	Hardegg, „	„
110–112, 113. ♀	Znaim, S. Moravia	„
114. ♂	Between Retz and Znaim, Moravia	Hr. F. Henkel.
115–118. ♀ and hgr.	Kis-Pest, near Budapest	M. G. de Southoff.
119–120. ♂, ♀	Cattaro, Dalmatia	Florence Museum.
121–122. ♂, ♀	Travnik, Bosnia	Dr. F. Werner.
123. ♀	Livno, „	„
124. ♀	Varna, Bulgaria	„
125. Yg.	Albania	M. Vian (Lataste Coll.).
126–127. ♀ and yg.	Salonica	T. Southgate, Esq.
128, 129. ♂	„	Zoological Society.
130–131. ♂, ♀	Bazias, Roumania	Dr. F. Werner.
132–133. ♂, ♀	Nagyszeben, Roumania	Prof. L. von Méhely.
134–141. ♂, ♀ and yg.	Bukarest	M. A. Montandon.
142–146. ♂, ♀	Comana, Vlasca, Roumania	„
147. ♂	Zorleni, Barlad Valley, Roumania	„
148–149 ♀ and yg.	Greci, Macin District, Dobrudja	„
150–157. ♀ and yg.	Near Macin, Dobrudja	„
158–159. ♂, ♀	Khotz, near Trebizond	M. A. Robert.

Var. STRIGATA, Eichw.

1. Yg.	Rutshuk, Bulgaria	Prof. Kovatcheff.
2. ♀	Aschar-Adé Id., Caspian Sea	Petrograd Museum.
3–4. ♂, ♀	Elisabethpol, Transcaucasia	„
5. Yg.	Helenendorf, near Elisabethpol	„
6–7. ♂	Borshom, Transcaucasia	Dr. G. Radde
8–9. ♂ and yg.	Angora	M. H. Gadeau de Kerville.
10–12. Yg.	Smyrna.	
13. Yg.	Shiraz, Persia	Major St. John.
14–15. ♂	Ferzol, Lebanon	Turin Museum.
16–19. ♂, ♀ and yg.	L. Homs, Syria	M. H. Gadeau de Kerville.
20. ♂	Island in L. Homs	Lyons Museum.
21. ♂	Between Damascus and Ataibe	M. H. Gadeau de Kerville.

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22–23. Yg.	L. Phiala, under Mt. Hermon	Canon Tristram.
24. ♂	E. slope of Mt. Hermon	Dr. J. Anderson.
25–26. ♂	Merom	Canon Tristram.
27. Yg.	Jerusalem	„

Var. MAJOR, Blgr.

1–3. ♂	Zara, Dalmatia	Hr. Spada-Novak.
4. ♂	Dalmatia	Hr. Heckle.
5. ♂	„	Christiania Museum.
6–7. ♂, ♀	„	M. G. de Southoff.
8. ♀	„	Zoological Society.
9. ♂	„	Dr. E. Schreiber (Lataste Coll.).
10–11. ♂	Greece.	
12. Yg.	Athens	Dr. A. Smith Woodward.
13. Yg.	L. Stymphalos, N. Morea	Norman Douglass, Esq.
14. Yg.	Sta. Maura, Ionian Ids.	Dr. F. Werner.
15. ♂, type of var. *fusca*	Milos	Dr. J. de Bedriaga.
16. ♂	„	„ (Lataste Coll.).
17, 18–22. ♀ and yg.	Crete	Baron von Maltzan.
23–26. ♂ and yg.	„	Miss D. Bate.
27. ♀	Syra.	
28 29. ♂	Rhodes	C. G. Danford, Esq.
30. ♂	Asia Minor	C. Fellows, Esq.
31. ♂	Zebil Bulgar Dagh, Cilician Taurus, 4000 f.	C. G. Danford, Esq.
32–33. ♂	N.W. of Ispahan, Persia, 5500–6000 f.	R. B. Woosnam, Esq.

Var. WOOSNAMI, Blgr.

1–8. ♂, ♀, types	S. Coast of Caspian Sea, Persia	R. B. Woosnam, Esq.
9. Yg.	Bash Nurashin, N.W. Persia	R. T. Günther, Esq.

Var. SCHREIBERI, Bedr.

1–2. ♂, ♀	Burbia, Prov. Leon	Dr. H. Gadow.
3, 4. ♀ and yg.	„ „	E. Britten, Esq.
5–10. ♂ and yg.	Coruna	M. V. L. Seoane.
21–20. ♂, ♀ and yg.	Galicia	„
21–22, 23. ♂, ♀ and yg.	„	„ (Lataste Coll.).

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24–33. ♂, ♀	Lozoya Valley, near Madrid, 1000–1500 m.	M. de la Escalera.
34. ♀	La Granja, Sierra de Guadarrema	„
35. ♀	Coimbra	Dr. H. Gadow.
36–38, 39–41. ♂, ♀ and yg.	Serra de Gerez, Portugal	„
42–45. ♂, ♀, and yg., types of var. *gadovii*	Serra de Monchique, Algarve	„

Lacerta princeps, Blanf.

1. ♀	Near Shiraz, Persia	H. F. Witherby, Esq.

Lacerta ocellata, Daud.

Forma typica.

1. ♂	Valdeblore, Alpes-Maritimes, 1140 m.	M. G. F. de Witte.
2. ♀	Antibes	„
3–4. ♂	Cannes	„
5–6. ♂	Nice.	
7. ♂	„	Dr. J. de Bedriaga (Lataste Coll.).
8. ♀	Ste. Cécile, Vaucluse	M. M. Mourgue.
9. ♀	Marseilles	M. Siépi (Lataste Coll.).
10. Yg.	„	M. M. Blanc „
11. ♂	Montpellier	Prof. Duboscq.
12–13. Yg.	Cap Cerbère, Pyrenées-Orientales	O. Thomas and R. I. Pocock, Esq.
13, 14. Hgr. and yg.	Arlac, Gironde	M. F. Lataste (Lataste Coll.).
15–16. ♂	Oléron Id.	M. P. Chabanaud.
17. ♀	Galicia, Spain	M. V. L. Seoane.
18. ♂	Ferrol, Galicia	„
19–24. ♂, ♀, and yg.	Silos, Burgos.	Rev. S. Gonzales.
25. ♂	Villa Franca, Leon	E. Britten, Esq.
26. ♂	Cacabelos, Leon	„
27–28. ♂ and hgr.	Madrid	M. V. L. Seoane.
29–32. ♀, hgr. and yg.	Lozoya Valley, near Madrid, 1000 m.	M. de la Escalera
33–40. Hgr. and yg.	Ciudad Real	Prof. E. Boscá (Lataste Coll.).
41. ♀	Albufera, Valencia	Lord Lilford.
42. ♂	Seville	M. V. L. Seoane.
43. ♂	„	Prof. Calderon.
44. ♂	Gibraltar	R. MacAndrew, Esq.

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45. Hgr.	Spain	Lord Lilford.
46–47. Hgr. and yg.	Coimbra	Dr. H. Gadow.
48–49. Yg.	Pomerao, Portugal	,,
50. Hgr.	Alcochete, ,,	M. G. de Southoff.
51–52. ♂ and yg.	Cintra, ,,	Col. Yerbury.
53. ♂	Lower Alemtejo	Wilfred Neville, Esq.
54. ♂, type of *L. senegalensis*	— ?	

Var. PATER, Lataste.

1, 2. ♂, ♀	Tunis	Mr. L. Fraser.
3–6. ♂, ♀ and yg.	Ain Drahan, N. Tunisia	M. H. Gadeau de Kerville.
7–10. ♂, ♀	Dairat, S. Tunisia.	Dr. J. Anderson.
11–14. ♂, ♀, hgr. and yg.	Bona	Dr. Hagenmüller.
15–16. Hgr. and yg., types	Guelma, Prov. Constantine	M. Letourneux (Lataste Coll.).
17–20. ♂, ♀ and hgr., types	Setif	M. F. Lataste (Lataste Coll.).
21. Yg., type	Lambesa	,, ,,
22. Yg., type	El Guerah	,, ,,
23–24. ♀, types	Batna	,, ,,
25, 26. ♂, ♀	N. of Biskra	Canon Tristram.
27–28. Yg.	Algiers.	
29. Hgr., type	,,	M. F. Lataste (Lataste Coll.).
30. ♀	Hammam Meskoutine, near Algiers	Dr. J. Anderson.
31. ♂ (*Chrysolamprus algirus*, Fitz.)	Algeria.	
32–33, 34. ♂, ♀ and yg.	Tlemsen, Prov. Oran	Dr. J. Anderson.
35–37. ♂ and yg.	,, ,,	Lord Rothschild and Dr. E. Hartert.
38–43. ♂, ♀ and yg., types of v. *tangitana*	Tangier	M. H. Vaucher.
44–49. ♂, ♀ and yg.	,,	,,
50–51. ♂ and yg.	,,	,, (Lataste Coll.).
52–60. ♂, ♀ and yg.	Imintamout, foot of Atlas of Morocco	Hr. Riggenbach.

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61–70. ♂, ♀ and yg. . . . Fenzou, Atlas of Morocco . . . Hr. Riggenbach.
71. Hgr. . . Seksawa, „ . . . „
72. Yg. . . . Tamaruth Valley, Atlas of Morocco, 1500 m. . . . . „

Lacerta atlantica, Peters & Doria.

1. ♀, one of the types Arrecife, Lanzarote, Canary Ids. . . Marquis G. Doria.
2. Hgr., „ „ „ „ . . „ (Lataste Coll.).
3–11. ♂, ♀ and yg. Haria Valley, Lanzarote . . . D. A. Bannerman, Esq.
12–15. ♂, ♀ . Lanzarote . . . . . Dr. Richter.
16–19. ♂ . . „ . . . . . E. G. B. Meade-Waldo, Esq.
20. Yg. . . . — ? P. B. Webb, Esq.
21. Yg. . . . — ? R. MacAndrew, Esq.

Lacerta galloti, D. & B.

1, 2. ♂ and yg. . Teneriffe . . . . . H.M.S. "Challenger."
3–31. ♂, ♀ and yg. „ . . . . . D. A. Bannerman, Esq.
32. ♂ . . . Santa Cruz, Teneriffe . . . M. J. Nicoll, Esq.
33–34. ♂, ♀ . . Canary Ids. . . . . M. G. de Sonthoff.
35–36. ♀ and hgr. „ . . . . . M. Verneau (Lataste Coll.).
37–38. ♀ and hgr., types of *Zootoca derbiana* . . — ? Lord Derby.
39. Yg. . . . — ? P. B. Webb, Esq.
40. Yg. . . . — ? R. MacAndrew, Esq.

Lacerta stehlini, Schenkel.

1–3. ♂, ♀ . . Gran Canaria . . . . . Vienna Museum.
4–7. ♂, ♀ and yg. „ . . . . . Hon. C. Baring and W. R. Ogilvie Grant, Esq.
8–9. Yg. . . „ . . . . . Dr. J. G. Fischer.
10. Yg. . . . „ . . . . . Prof. Poulton.

Lacerta simonyi, Stdr.

1, 2. ♂, ♀ . . Roques del Zalmor, near Hierro, Canary Ids. . . . . Canon Tristram.

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LACERTA VIVIPARA, Jacq.

1. ♀	Sweden	C. J. A. Thuden, Esq.
2. ♀	Jutland	Christiania Museum.
3–6. ♂, ♀ and yg.	Scotland	Dr. Johnston.
7. ♀	„	Dr. T. B. Henderson.
8–12. ♂, ♀	Lhanbryde, Morayshire	W. Taylor, Esq.
13–14. ♂, ♀	W. Ross-shire	W. Eagle Clarke, Esq.
15–16. ♂, ♀	Douglas, Isle of Man	R. Soathem, Esq.
17. ♀	Rhyl, Flintshire	H. E. Forrest, Esq.
18. ♀	Levisham, Yorkshire	Bro. Philip Widdowson.
19. ♂	Thetford, Norfolk	Lord Walshingham.
20. ♀	Eastbourne, Sussex	T. Hopley, Esq.
21. ♀	Limpsfield, Surrey	G. A. Boulenger, Esq.
22. ♂	Sheire Common, near Guildford	W. J. Lunn, Esq.
23. ♀	Hindhead, Surrey	E. Britten, Esq.
24. ♂	Near Petersfield, Hampshire	Mrs. Mowatt.
25–28. ♀ and yg.	Ringwood, „	F. Bond, Esq.
29–30. ♂	Bloxworth, „	A. Loveridge, Esq.
31–33. ♂	Bournemouth, „	G. A. Boulenger, Esq.
34–35. ♂, ♀	Poole Heath, Dorsetshire	W. Thompson, Esq.
36. ♂	Corfe Castle, „	E. R. Banks, Esq.
37–40. ♂, ♀	Fowey, Cornwall	G. A. Boulenger, Esq.
41. ♀	Co. Meath	Field Office.
42. ♀	Leggs, Co. Farmanagh	Major H. Trevelyan.
43. ♂	Graigue, Co. Kilkenny	Capt. Barrett Hamilton.
44–46. ♀ and yg.	Near St. Malo	G. A. Boulenger, Esq.
47. ♂	La Ferté-Macé, Orne	M. H. Gadeau de Kerville.
48. ♂	Bondy, near Paris	M. F. Lataste (Lataste Coll.).
49–51. ♂ and hgr.	Rambouillet, near Paris	M. E. Simon „
52. Hgr.	St. Quentin, Aisne	M. F. Lataste „
53–56. ♂ and hgr.	Aube	M. Collin de Plancy (Lataste Coll.).
57–58. ♂, ♀	Mont Dore	M. F. Lataste „
59–62. ♀	La Bourboule, Puy-de-Dôme	M. G. F. de Witte.
63. ♂	Forêt de Lente, Drôme	Prof. L. Léger.
64. ♀	Mt. Belladone, Isère	„

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65–66. ♀ . . Liraan, Cantal . . . . . M. E. Simon (Lataste Coll.).
67–69. ♂ . . Bordeaux . . . . . M. F. Lataste „
70. Yg. . . . Luchon, Pyrenees . . . . . M. A. Dollfus.
71. ♀ . . . Lac d'Oo, Hautes-Pyrénées . . . M. F. Lataste (Lataste Coll.).
72–76. ♀ and yg. Ostend . . . . . G. A. Boulenger, Esq.
77–78. ♀ . . Heyst, Belgium . . . . . „
79–88, 89–95. ♂, ♀ and yg. . . Near Brussels . . . . . „
96. ♀ . . . Bergen-op-Zoom, Holland . . . Prof. R. Blanchard (Lataste Coll.).
97–103. ♂, ♀ and yg. . . . Boussers, Vaud, Switzerland . . W. Morton, Esq.
104–111. ♂, ♀ . Höllsteig, Baden . . . . . G. A. Boulenger, Esq.
112–113. ♂, ♀ . Saxony . . . . . M. G. de Southoff.
114–117. ♀ . . Berlin . . . . . G. A. Boulenger, Esq.
118–125. ♂, ♀ and yg. . . . Schneeberg, Lower Austria . . . Hr. F. Henkel.
126. ♂ . . . Unterberg, near Pernitz, Lower Austria Dr. F. Werner.
127–128. ♂ . . St. Peter, near Grafensbrunn, Carniola Hr. F. Henkel.
129. ♂ . . . Borgo, S. Tyrol . . . . . Florence Museum.
130–132. ♂, ♀ and yg. . . . Bozau, Transylvania . . . . Prof. L. von Méhely.
133–136. ♂, ♀ . Brosteni, Carpathians of Roumania . M. A. Montandon.
137–139. ♂, ♀ . Sinaia, „ . „
140–146. ♀ and yg. Dambovita, „ . „
147–148. ♂ . . Russian Lapland . . . . . Petrograd Museum (Lataste Coll.).
149. ♂ . . . Salowitzki Id., White Sea . . . Petrograd Museum.
150–151. ♂, ♀ . Esthonia . . . . . „
152. ♀ . . . Petrograd . . . . . „
153–154. ♂ . . Moscow . . . . . Moscow University.
155. ♀ . . . Uralsk . . . . . Petrograd Museum.
156–157. ♂, ♀ . Kirghiz Steppes . . . . . „
158. ♂ . . . Padun, R. Angara . . . . . „
159. ♀ . . . Stanowyi Mts., E. Siberia . . . „
160. ♂ . . . Nicolawsk, Amoor . . . . . „
161–164. ♂, ♀ . Near Korsakoff, Sachalien Id. . . M. P. Anderson, Esq.
165–166. ♀ . . Sachalien Id. . . . . Petrograd Museum.
167–169. ♂, ♀ . „ . . . . . Prof. S. Hatta.

Lacerta derjugini, Nik.

1–4. ♂, ♀ . . Mechelripsch, Gov. Tchernomorskaja, Transcaucasia . . . . . M. Nesterov.

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5. ♂ . . . Lagodechi, N. Kahletie, Transcaucasia M. L. Lantz.
6. ♀ . . . Iasotchka, near Sukhum, Transcaucasia, 400 m. . . . . „
7. ♀ . . . Borjom, Gov. Tiflis . . . . . „
8. ♂ . . . Bakuriani, near Borjom, 1200 m. . . „

Lacerta praticola, Eversm.

1–3. ♂ and hgr. . Sukhum Kale, Transcaucasia . . Petrograd Museum.
4–12. ♂, ♀ and yg. Comana Forest, Vlasca district, Roumania . . . . . M. A. Montandon.
13, 14–15. ♂, ♀ . Herkulesbad, Transylvania . . . Prof. L. von Méhely.

Lacerta taurica, Pall.

Forma typica.

1. ♀ . . . Crimea . . . . . Petrograd Museum.
2–3. ♀ and yg. . Bakal, Crimea . . . . . L. E. Adams, Esq.
4–5. ♀ and hgr. . Sebastopol . . . . . Petrograd Museum.
6. ♂ . . . Roumania . . . . . Dr. F. Werner.
7–11. ♂, ♀ and hgr. . . . Cerna Voda, Dobrudja, Roumania . M. A. Montandon.
12. ♂ . . . Greci, „ . „
13–14. ♂, ♀ . . Bazias, Roumania . . . . Prof. L. von Méhely.
15. ♀ . . . Rutshuk, Bulgaria . . . Dr. F. Werner.
16. ♀ . . . „ „ . . . Prof. Kowatcheff.
17. ♂ . . . Constantinople.
18–21. ♂, ♀ . . Kalamaria, Salonica . . . Zoological Society.
22–23. ♂, ♀ . . Tzabadka, Hungary . . . Prof. L. von Méhely.
24–33. ♂, ♀ . . Budapest . . . . . M. G. de Southoff.
34–35. ♂, ♀ . . Budapest-Franzstadt . . . Dr. P. Lehrs.
36–37. ♂, ♀ . . Rakos, near Budapest . . . Prof. L. von Méhely.

Var. ionica, Lehrs.

1–2. ♂, ♀ . . . Tyrins to Mykena, Morea . . Dr. R. Ebner.
3–6. ♂, ♀ and yg. L. Stymphalos, „ . . . Norman Douglass, Esq.
7–10. ♂, ♀ . . . Nision, Mesenia, „ . . . Hr. M. Holtz.
11. ♂ . . . „ „ „ . . . Hr. L. Müller.
12–13. ♂, ♀ . . Cephalonia . . . . . Dr. F. Werner.
14–15. ♂, ♀ . . Hagios Gerasimos, Cephalonia . . Hr. L. Müller.
16–17. ♂, ♀ . . Argostoli, Cephalonia . . . . „
18–19. ♀ . . Corfu . . . . . R. Frett, Esq.
20–33. ♂, ♀ . . „

Lacerta peloponnesiaca, Bibr.

1–2. ♂, ♀ . . Morea . . . . . Dr. J. de Bedriaga.
3–4. ♂, ♀ . . Taygetos, Morea . . . . . „ (Lataste Coll.).

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5–6. ♂, ♀ . .	Olympia, Morea	Hr. L. Müller.
7–8. ♂, ♀ . .	„ „	Dr. R. Ebner.
9. ♂ . . .	Mykena, „	„
10. ♂ . . .	Tyrins, „	„
11. ♂ . . .	Kalamata, „	Hr. L. Müller.
12–13. ♂, ♀ . .	„ „	M. G. de Southoff.
14–18. ♂, ♀ and yg. . . .	L. Stymphalos, Morea . . .	Norman Douglass, Esq.
19–20. ♂, ♀ . .	Greece	Zoological Society.

Lacerta muralis, Laur.

Forma typica.

1. ♀ . . .	Jersey	G. Hornell, Esq.
2–6. ♂, ♀ and yg.	Great Chansey Isle, Normandy .	M. H. Gadeau de Kerville.
7–10. ♂, ♀ . .	Near St. Malo	G. A. Boulenger, Esq.
11–16. ♂, ♀ . .	St. Lunaire, Ille-et-Vilaine . .	E. G. Boulenger, Esq.
17. ♂ . . .	„ „ . .	J. H. Pollen, Esq.
18–21. ♂, ♀ . .	Dinan, Côtes-du-Nord . . .	E. Britten, Esq.
22–23. ♂, ♀ . .	Pempet Isle, Glenan Ids., Brittany	Prof. A. Giard.
24–27. ♀ . . .	„ „ „ . .	„ (Lataste Coll.).
28–31. ♂ and yg. .	Tours	M. P. Chabanaud.
32–41. ♂, ♀ . .	St. Epain, Indre-et-Loire . .	„
42–44. ♂, ♀ . .	Oleron Id.	„
45–48. ♀ and yg. .	Cap Ferret, near Arcachon . .	Prof. Cuénot.
49. ♂ . . .	St. Sever, Landes	M. Dubalen (Lataste Coll.).
50–66. ♂, ♀ and yg. . . .	Bordeaux	M. F. Lataste, „
67. ♂ . . .	Achard, near Bordeaux. . . .	E. Britten, Esq.
68. ♂ . . .	Talais, Gironde	M. F. Lataste (Lataste Coll.).
69–77. ♂, ♀ and yg. . . .	Eaux-Bonnes, Pyrenees . .	M. F. Lataste.
78–84. ♂, ♀ . .	„ „ . . .	„ (Lataste Coll.).
85. ♀ . . .	Aspin, near Pic du Midi, 1545 m. .	M. F. Lataste (Lataste Coll.).
86. ♂ . . .	Paris	M. Kopperhorn (Lataste Coll.).
87. ♀ . . .	„	M. Collin de Plancy (Lataste Coll.).

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88–92. ♂, ♀ . . Bouron, Fontainebleau . . . . M. E. Taton. (Lataste Coll.).
93–95. ♂, ♀ and yg. Odilienberg, near Strasburg, 2680 f. . G. A. Boulenger, Esq.
96–97. ♂, ♀ . . Montpellier . . . . . Prof. Duboscq.
98–99. Yg. . . Near Narbonne . . . . . M. E. Simon (Lataste Coll.).
100–109. ♀ and yg. Marseilles . . . . . Prof. Vayssière.
110–111. ♂ . . Riou Isle, near Marseilles . . . M. M. Mourgue.
112–115. ♂, ♀ . Villefranche-sur-Mer . . . . Dr. P. Lehrs.
116–124. ♂, ♀ . Valdeblore, Alpes-Maritimes, 2000 m. . M. P. Chabanaud.
125–134. ♂, ♀ . Near Dinant, Belgium . . . . G. A. Boulenger, Esq.
135. ♂ . . . Maredsous, near Dinant . . . Rev. B. Lebbe.
136–145. ♂, ♀ and yg. . . . Denée, „ . . . . M. A. Van Delft.
146. ♀ . . . Lower Ahr, Rhineland . . . . W. F. Kirby, Esq.
147–148. ♂, ♀ . Heidelberg . . . . . Dr. J. de Bedriaga (Lataste Coll.).
149–152. ♂, ♀ . Binningen, near Basle . . . . Dr. J. Roux.
153–154. ♂ . . Close to Bies Glacier, near Randa, Valais, 6500 f. . . . . C. R. Boulenger, Esq.
155–157. ♂, ♀ . Baden, near Vienna . . . . Dr. F. Werner.
158, 159–161. ♂, ♀ Vöslau, „ . . . . . „
162. ♂ . . . Meisenbach, near Vienna . . . „
163–164. ♂ . . St. Peter, near Grafensbrunn, Carniola Hr. F. Henkel.
165–166. ♂ and yg. Barcelona . . . . . O. Thomas and R. I. Pocock, Esqrs.
167–172. ♂, ♀ . „ . . . . . M. G. de Southoff.
173–182. ♂, ♀ . Hernani, Guipuzcoa . . . . E. Britten, Esq.
183. ♂, type of var. *rasquineti* . . La Deva, Arnao . . . . Dr. J. de Bedriaga.
184. ♂ . . . R. Burbia at Ariadapedra, Leon . . E. Britten, Esq.
185–196. ♂, ♀ . Corunna. . . . . M. V. L. Seoane.
197–216, 217–229. ♂, ♀ and yg. . Silos, Burgos. . . . . Rev. S. Gonzales.
230–243. ♂, ♀ and yg. . . . Castrillo de la Reina, Burgos . . „
244–248. ♂, ♀ . Saragossa . . . . . M. G. de Southoff.
249–268. ♂, ♀ and yg. . . . Lozoya Valley, near Madrid, 1000–1500 m. . . . . M. de la Escalera.
269–272. ♂, ♀ . Bozen, S. Tyrol . . . . Hr. A. Mulser.
273–277. ♂, ♀ and yg. . . . Domodossola, Piedmont . . . Turin Museum.
278. ♂ . . . Lanzo Valley, „ . . . „
279–289. ♂, ♀ . Turin . . . . . „
290–294. ♂, ♀ . Genoa . . . . . Dr. R. Gestro.

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295. ♀ . . . Portofino, near Rapallo . . . Turin Museum.
296–297. ♂, ♀ . Ferreira, Apennines . . . Prof. G. B. Howes.
298–299. ♂ . . Florence . . . . . Florence Museum.
300. Hgr. . . „ . . . . . M. G. de Southoff.
301. ♀ . . . Brozzi, near Florence . . . Dr. A. Banchi.
302. ♂ . . . Antrodoco, Abruzzi . . . Dr. R. Ebner.
303. ♂ . . . Pietrocamela-Casale, Abruzzi . . „
304. ♀ . . . Villalaga-Auversa, „ . . „
305–310. ♂, ♀ . Montreale, Abruzzi, S. of Gran Sasso, 2900 f. . . . . M. G. de Southoff.
311–313. ♂ and yg. Bosco d'Umbra, Monte Gargano . Prof. O. Neumann.
314–316. ♂, ♀ . Bosnia . . . . . Hr. C. Floericke.
317. ♂ . . . Travnik, Bosnia . . . Dr. F. Werner.
318. ♀ . . . Livno, „ . . . . „
319. Yg. . . Korito, Herzegovina, 1000 m. . . „
320–321. ♂ . . Teteven, Bulgaria . . . . „
322. ♂ . . . Panagiurista, „ . . . . Prof. Kovatcheff.
323. ♂ . . . Rutshuk, „ . . . . „
324. ♂ . . . Bazias, Roumania . . . Dr. F. Werner.
325–326. ♂, ♀ . Herkulesbad, „ . . . Prof. L. von Méhely.
327. ♂ . . . L. Stymphalos, Morea . . . Norman Douglass, Esq.
328. ♂ . . . Pentelicon, near Athens . . Dr. R. Ebner.
329–330. ♂, ♀ . (?) Crete . . . . . Miss D. Bate.

Var. FIUMANA, Wern.

1. ♂ . . . Gorizia . . . . . Dr. E. Schreiber (Lataste Coll.).
2–4. ♀ and hgr. . Karst . . . . . „ „
5–6. ♂, ♀ . . Trieste . . . . . Dr. F. Werner.
7–9. ♂ and yg., types . . Fiume . . . . . „
10–12. ♂, ♀ . Zeč Isle, near Veglia . . . M. G. de Southoff.
13. ♂ . . . Cherso Id., Istria . . . Dr. F. Werner.
14. ♀ . . . Lussin Id., „ . . . Dr. E. Schreiber (Lataste Coll.).
15–18. ♂, ♀ . . Zara, Dalmatia . . . M. Spada-Novak.
19–26. ♂, ♀ . . „ „ . . . M. G. de Southoff.
27–29. ♂, ♀ . . Solta Id., Dalmatia . . Dr. F. Werner.
30. ♂ . . . Brazza Id., „ . . Dr. J. de Bedriaga.
31–32. ♂, ♀ . . Lesina Id., „ . . Dr. R. Ebner.
33–34. ♀ . . Curzola Id., „ . . „
35. ♂ . . . Scoglio Supetar, Dalmatia . . Dr. F. Werner.
36–38. ♂, ♀ and yg. . . . Bosnia . . . . Hr. C. Floericke.
39–41. ♂, ♀ . . Capljina, Herzegovina . . M. Trebitzky.
42–43. ♂, ♀ . . Bukovici, „ . . . Dr. F. Werner.
44–45. ♂, ♀ . . Brestica, „ . . . „
46–48, 49–50. ♂ . Trebinje, „ . . . „

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Var. LISSANA, Wern.

1–3. ♂, ♀, types	Lissa Id., Dalmatia,	Dr. F. Werner.
4–5, 6–15. ♂, ♀	„ „	M. G. de Southoff.
16. ♂	Glavati, Lagosta Id., Dalmatia	Dr. F. Werner.

Var. MELISELLENSIS, Braun.

1–3. ♂, ♀, types	Melisello Id., near Lissa.	Dr. F. Steindachner.
4–5. ♂	„ „	Dr. F. Werner.
6–9. ♂, ♀	„ „	M. Spada-Novak.
10–13. ♂	„ „	Prof. Kolombatovic.
14–15. ♂	„ „	Hr. L. Müller.
16. ♂	„ „	Dr. E. Schreiber (Lataste Coll.).
17. ♂, type of var. *galvagnii*	Scoglio Kamik, W. of St. Andrea, near Lissa	Dr. F. Werner.

Var. SERPA, Raf.

1–11. ♂, ♀	Monte Cuccio, near Palermo	Prof. O. Neumann.
12–14. ♂, ♀	Bosco di Marineo, Palermo	Hr. L. Müller.
15. ♂	Palermo	Count M. G. Peracca.

Var. CAMPESTRIS, De Betta.

1–2. ♂	Verona	Sig. E. De Betta (Lataste Coll.).
3. ♀	Venice	Dr. F. Werner.
4. ♀	Lido, near Venice	M. Sédillot (Lataste Coll.).
5–9. ♂, ♀	Treviso	Sig. Scarpa (Lataste Coll.).
10–25. ♂, ♀ and yg.	Turin	Turin Museum.
26–28. ♂, ♀	Bologna	Prof. J. J. Bianconi.
29. ♂	Viareggio, near Pisa	M. G. de Southoff.
30–34. ♂, ♀	Florence	Dr. J. de Bedriaga.
35–37. ♂, ♀	„	Florence Museum.
38. ♀	„	M. G. de Southoff.
39. ♂, type of var. *livornensis*	Calambrone, Livorno	Dr. J. de Bedriaga.
40. ♂	Ancona	Count M. G. Peracca.
41–42. ♂, ♀	Perugia	„
43–46. ♂, ♀	L. Trasimene, Perugia	„
47–50, 51–52. ♂, ♀	Castelfranco, Ostia	Dr. L. W. Sambon.
53–55. ♂, ♀	Rome	Dr. F. Werner.
56. ♀	Antrodoco, Abruzzi	Dr. R. Ebner.
57–58. ♂	Auversa, „	„
59. ♂	Alfedena, „	„

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60. ♂	Assergi, Abruzzi	Dr. R. Ebner.
61. ♂	Elba	W. C. Trevelyan, Esq.
62. ♀	Corsica	M. A. Dollfus.
63–64. ♂	Trieste	G. A. Boulenger, Esq.
65. ♂	Pola, Istria	Dr. F. Werner.
66. ♀	Lussin Id., Istria	„
67–70. ♂, ♀	Sansego Id., „	„
71–76. ♂, ♀	Zara, Dalmatia	„
77 78. ♂	„ „	M. Spada-Novak.
79–82. ♂, ♀	„ „	M. G. de Southoff.

Var. ALBIVENTRIS, Bp.

1, 2–3. ♂, ♀	Rome	W. C. Trevelyan, Esq.
4–5, ♂, ♀	Naples	Dr. J. de Bedriaga (Lataste Coll.).
6–11. ♂, ♀ and yg.	Pompeii	Florence Museum.
12 16. ♂, ♀	„	E. Noble Smith, Esq.
17 20. Hgr.	„	M. G. de Southoff.
21. ♀	Ischia Id.,	Florence Museum.
22–23. ♂, ♀	Vendotena Id.	„
24. ♀	San Stefano Id.	„
25–27. ♂, ♀	„	M. G. de Southoff.
28. ♂, type of var. *latastii*	Ponza Id.	Dr. J. de Bedriaga.
29–30. ♂, ♀, types of var. *latastii*	„	„ (Lataste Coll.).
31–35. ♂, ♀	„	Florence Museum.
36–37. ♂	Vivara Id.	F. Robin, Esq.
38–40. ♂, ♀	Procida Id.	„
41. ♂	Casamicciola Id.	„
42. ♀	Capri	Dr. J. de Bedriaga (Lataste Coll.).
43. ♀, type of *L. faraglionensis*	Faraglione Rock, near Capri	Dr. J. de Bedriaga.
44. ♂, „	„ „	„ (Lataste Coll.).
45. ♂ (var. *cærulea*)	„ „	Sir E. Ray Lankester.
46–49. ♂, ♀ „	„ „	Dr. A. Mulser.
50–52. ♂, ♀	Reggio, Calabria	Florence Museum.
53–56. ♂, ♀ and yg.	Lecce, Otranto	M. G. de Southoff.

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57–66. ♂, ♀	Monte Gargano	Prof. O. Neumann.
67–85. ♂, ♀ and yg.	S. Nicola, Termiti Ids.	M. G. de Southoff.
86. ♂	Arbe Id., Istria	Dr. F. Werner.
87–88. ♂	Zara, Dalmatia	M. Spada-Novak.
89–91. ♂	Cazza Id., near Lissa	Prof. Kolombatovic.
92–95, 96–104. ♂, ♀ and yg.	Scoglio Susac, near Lissa	M. G. de Southoff.
105. ♂	Pelagosa Grande, near Lissa	Prof. Kolombatovic.
106–109. ♂, ♀ and yg.	„ „	Dr. F. Werner.

Var. ERHARDI, Bedr.

1. ♂	Petali, Eubœa	Dr. J. de Bedriaga.
2–3. ♂, ♀	Delos, Cyclades	Dr. R. Ebner.
4. ♂	Tenos, „	Dr. J. de Bedriaga.
5 6. ♂, ♀	Mykenos, „	Hr. L. Müller.
7. ♂	Syra, „	„
8–14. ♂, ♀, types of var. *naxensis*	Naxos, Cyclades	Dr. F. Werner.
15–18. ♂, ♀	Santorin, „	Hr. L. Müller.
19 21. ♂, ♀ and hgr.	„ „	Dr. R. Ebner.
22–23. ♂, types of var. *milensis*	Milos, „	Dr. J. de Bedriaga.
24–25. ♂, ♀, types of var. *nigrogularis*	Erimomilo, „	Dr. F. Werner.

Var. QUADRILINEATA, Gray.

1. ♂, type of var. *corsica*	Orezza, Corsica	Dr. J. de Bedriaga.
2–5. ♂, ♀	Corte, „	Florence Museum.
6–8. ♂, ♀	„ „	Dr. Forsyth Major.
9–15. ♂, ♀ and yg.	Ajaccio	Basle Museum.
16–17. ♂, ♀	Corsica	M. A. Dollfus.
18–37. ♂, ♀ and yg.	Latsorbe, Urzulei-Ogliastra Mts., Sardinia, 3900 f.	Sig. G. Meloni.
38–44. ♂, ♀	Flumini di Quarto, Sardinia	Count M. G. Peracca.
45–48. ♂, ♀	Lanusei, Sardinia	Hr. L. Müller.
49 54. ♂, ♀ and yg.	„ „	M. G. de Southoff.
55. ♀	Ghilazzo, „	Dr. J. de Bedriaga.
56–57. ♂ and yg.	Cagliari	Florence Museum.
58–60. ♂, ♀	„	Count M. G. Peracca.
61–65. ♂, ♀	Carloforte, S. Pietro Id., Sardinia	M. G. de Southoff.
66–68. ♀, types	Sardinia	Rev. W. Hennah.

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Var. FILFOLENSIS, Bedr.

1–3. ♂, ♀ . .	Malta	J. Ritchie, Esq.
4–7. ♂ and yg. .	„	A. A. Tollemache, Esq.
8–9. ♀ . . .	„	Florence Museum.
10–23. ♂, ♀ and yg. . . .	„	Capt. H. Lynes.
24. ♂ . . .	„	Mrs. F. H. Pollen.
25–28. ♂, ♀ .	„	Mr. M. G. Despott.
29–31. ♀ and yg. .	„	J. L. Clarke, Esq.
32. ♂ . . .	„	Bryan Hook, Esq.
33–34. ♂ . .	Biretzbriga, Malta . . .	M. G. de Southoff.
35–45. ♂, ♀ and yg. . . .	Rocky island near mouth of St. Paul's Bay, Malta	Capt. H. Lynes.
46–47. ♂, types .	Filfola Rock, near Malta . .	A. A. Tollemache, Esq.
48–58. ♂, ♀ .	„ „ . .	Norman Douglass, Esq.
59–72. ♂, ♀ .	„ „ . .	Mr. M. G. Despott.
73–76. ♂, ♀ .	„ „ . .	M. G. de Southoff.
77. ♀ . . .	Linosa	Florence Museum.
78–84. ♂, ♀ . .	„	Dr. J. de Bedriaga.
85–87. ♂, ♀ . .	„	M. G. de Southoff.
88–115. ♂, ♀ and yg. . . .	Lampione Id., near Linosa . . .	„

Var. LILFORDI, Gthr.

1–3. ♂, ♀ . .	Mahon, Minorca	M. J. Ferrer.
4–5. ♀ and yg. .	„ „	Prof. Braun (Lataste Coll.).
6. ♂, type of var. *balearica* . .	Minorca	Dr. J. de Bedriaga.
7–8. ♂ . . .	I. del Rey, Minorca . . .	M. J. Ferrer.
9–12. ♂, ♀ . .	„ „ . . .	Prof. Braun (Lataste Coll.).
13–16. ♂, ♀, types	I. del Ayre, Minorca . . .	Lord Lilford.
17–19. ♂, ♀ .	„ „ . . .	M. J. Ferrer.
24–30. ♂, ♀ .	„ „ . . .	M. G. de Southoff.
31–34. ♂, ♀ .	„ „ . . .	Prof. Braun (Lataste Coll.).
35–38. ♂, ♀ .	I. La Guardia, Majorca . . .	Prof. E. Boscá.
39–40. ♂, ♀ .	„ „	„ (Lataste Coll.).
41–43. ♂, ♀ .	I. Colomer, „ . . .	M. G. de Southoff.
44. ♂, type of var. *gigliolii* . .	I. Dragoneras, „ . . .	Dr. J. de Bedriaga.

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45. ♂, type of var. *gigliolii* . . I. Dragoneras, Majorca . . . . Dr. J. de Bedriaga. (Lataste Coll.).
46. ♂ . . . I. Cabrera, S. of Majorca . . . Dr. J. de Bedriaga.
47–89. ♂, ♀ . . „ „ . . . M. G. de Southoff.

Var. PITYUSENSIS, Boscá.

1–8. ♂, ♀. types . Iviza, Baleares . . . . . Prof. E. Boscá.
9–18. ♂, ♀ and yg., types . . „ „ . . . . Prof. E. Boscá. (Madrid Museum).
19–21. ♂, ♀, types „ „ . . . . . Prof. E. Boscá (Lataste Coll.).
22–29. ♂, ♀ . . „ „ . . . . . M. G. de Southoff.

Var. BRUEGGEMANNI, Bedr.

1–13. ♂, ♀ . . Genoa . . . . . Dr. R. Gestro.
14–16. ♂, ♀ . . Sestra Ponente, near Genoa . . . Turin Museum.
17–18. ♂, ♀ . . Rapallo . . . . . Dr. W. Wolterstorff.
19–22. ♂, ♀ . . Portofino, near Rapallo . . . Turin Museum.
23. ♂, type . . Spezia . . . . . Dr. J. de Bedriaga.
24–29. ♂, ♀ and yg. . . . Lerici, near Spezia . . . . Bryan Hook, Esq.
30–31. ♂ . . Bologna . . . . . Dr. F. Werner.
32. ♂ . . . Near Florence . . . . M. G. de Southoff.
33. ♂ . . . „ „ . . . . Dr. J. de Bedriaga.
34–39. ♂, ♀ . . Bagni di Ripoli, near Florence . . Dr. A. Banchi.
40–42. ♂ . . Tuscany . . . . . Zoological Society.

Var. NIGRIVENTRIS, Bp.

1. ♂, type of var. *flaviundata* . Rome . . . . . Dr. J. de Bedriaga.
2–8. ♂, ♀ . . „ . . . . . Rev. G. Fournier.
9–17. ♂, ♀ and yg. „ . . . . . Prof. D. Vinciguerra.
18. ♂ . . . Campagna near Rome . . . Prof. R. Collett.
19. ♀ . . . Castelfranco, Ostia . . . Dr. L. W. Sambon.
20–39. ♂, ♀ . Ariccia, near Albano . . . M. G. de Southoff.
40. ♂ . . . S. Stefano Id., near Naples . . . „
41. ♂ . . . Italy.

Var. INSULANICA, Bedr.

1. ♂ . . . Pianosa Id., near Elba . . . Prof. L. Camerano.
2–9. ♂, ♀ . . „ „ . . . Count M. G. Peracca.
10–14 . . . „ „ . . . M. G. de Southoff.
15–18 . . . Scarpa Id., near Pianosa . . . „
19–21 . . . Scuola Id., „ . . . „

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Var. TILIGUERTA, Gm.

1–10. ♂, ♀ and yg.	Giglio Id., Tuscan Archipelago	Marquis G. Doria.
11. Yg.	„ „	Florence Museum.
12–13. ♂	Gianutri Id., „	„
14–19. ♂, ♀	Cagliari	„
20. ♂	Assemini, near Cagliari	Count M.G. Peracca.
21–25. ♂, ♀	S. Sardinia	„
26–27. ♂	Sardinia	Dr. F. Werner.
28–29. ♂, ♀	Carloforte, S. Pietro Id., S.W. of Sardinia	M. G. de Southoff.
30–32. ♂ and yg.	Messina	Florence Museum.
33–37. ♂, ♀	„	Count M.G. Peracca.
38–42. ♂, ♀	Tarmina	Prof. O. Neumann.
43. ♂	Catania	Florence Museum.
44–51. ♂, ♀	„	Count M.G. Peracca.
52–54. ♂, ♀	Grammichele, Prov. Catania	M. G. de Southoff.
55. ♂	Syracuse	Florence Museum.
56–59. ♂, ♀	Modica	„
60–61. ♂, ♀	Palermo	Dr. F. Werner.
62–63. ♂, ♀	Monte Cuccio, near Palermo	Prof. O. Neumann.
64. ♀	Marettimo, Egades Ids.	M. G. de Southoff.
65. ♀	Stromboli, Lipari Ids.	Florence Museum.
66–67. ♀ and hgr.	„ „	Dr. R. Ebner.
68–74. ♂, ♀	Salina, „	M. G. de Southoff.
75–77. ♂, ♀	Lipari Ids.	Florence Museum.
78–80. ♂, ♀	Kamma, Pantellaria Id.	Dr. J. de Bedriaga.
81–84. ♂, ♀	„ „	M. G. de Southoff.
85. ♀	Binisaida, Minorca	Hr. L. Müller.
86. ♂	Marcadal, „	M. G. de Southoff.

Var. BEDRIAGÆ, Camer.

1–2. ♂, ♀, types	Bastelica, Corsica	Dr. J. de Bedriaga.
3. ♂	Tinozzo, „	Florence Museum.
4–7. ♂, ♀	Vizzavona, „	M. G. de Southoff.
8–9. ♂ and hgr.	Corsica	G. A. Boulenger, Esq.
10. ♂	„	Dr. J. de Bedriaga.
11–16. ♂, ♀	„	„ (Lataste Coll.).

Var. SARDOA, Peracca.

1–3. ♀	Mt. Gennargentu, Sardinia	Sig. G. Meloni.

Var. LIOLEPIS, Blgr.

1–3. ♂, types	Valencia, Spain	Lord Lilford.
4–19. ♂, ♀ and yg., types	„ „	Prof. E. Boscá.

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20–29. ♂, ♀, types	Valencia, Spain	Prof. E. Boscá (Madrid Museum).
30–34. ♂, ♀ and yg., types	„ „	Prof. E. Boscá (Lataste Coll.).
35–42. ♂, ♀ and yg., types	Foyos, near Valencia	Prof. E. Boscá (Madrid Museum).
43–45. ♂, ♀	Seville	Prof. Calderon.

Var. HISPANICA, Stdr.

1–2. Yg.	Almeria, Spain	Senckenberg Museum.
3. Hgr.	Spain	Madrid Museum.

Var. VAUCHERI, Blgr.

1–6. ♂, ♀, types	Tangier	M. H. Vaucher.
7. ♂	Salir, Algarve, Portugal	Dr. H. Gadow.

Var. BOCAGII, Seoane.

1. ♀, type	Corunna	M. V. L. Seoane.
2–5. ♂, ♀	Galicia, Spain	Miss Bucks.
6–11. ♂, ♀ and hgr.	„ „	M. V. L. Seoane (Lataste Coll.).
13–17. ♂, ♀ and hgr.	Isla Major, Sisargas Ids., N.W. Spain	W. C. Tait, Esq.
18–20. ♂ and hgr.	Tuy, Pontevedra	Prof. E. Boscá (Lataste Coll.).
21–24, 25–30. ♂, ♀ and hgr.	Cacabelos, Leon	E. Britten, Esq.
31–35. ♂, ♀	Sierra de Pico, Burbia, Leon	Dr. H. Gadow.
36–37. ♂	Ariadapedra, „ „	E. Britten, Esq.
38–39. ♂	Villa Franca, „ „	„
40–42. ♂, ♀ and yg.	Escorial, Madrid	Madrid Museum.
43–50. ♂, ♀	Lozoya Valley, near Madrid, 1000–1500 m.	M. de la Escalera.
51–52. ♂ and hgr.	Ciudad Real	Prof. E. Boscá (Lataste Coll.).
53. ♀	Los Morismos, Andalucia	Dr. H. Gadow.
54–55. ♀ and yg.	Oporto	„
56–60. ♂, ♀ and yg.	Coimbra	Dr. J. A. Henriques.
61–64. ♂ and yg.	Murça, Tras os Montes	Dr. H. Gadow.
65–68, 69–71. ♂, ♀	Serra de Gerez	„

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72. Yg.	Cintra	Col. Yerbury.
73–75. ♂, ♀	Near Lisbon	Dr. H. O. Forbes.
76–89. ♂, ♀ and yg.	Tamaruth Valley, Atlas of Morocco	Hr. Riggenbach.
90–100. ♂, ♀	Fenzou, Atlas of Morocco	„
101–105. ♂, ♀	Tlemsen, Prov. Oran	Dr. J. Anderson.
106. ♀	„ „	Lord Rothschild. and Dr. E. Hartert.
107–108. ♂, ♀	Sersou Plateau, Prov. Oran	M. Maupas (Lataste Coll.).
109. ♂	Daya, Prov. Oran	M. E. Simon „
110. ♀	Rorfa des Beni Salam, near Aumale	M. F. Lataste „
111–112. ♂	Chabet el Akra, Setif	„ „
113. ♀	Tebesa, Prov. Constantine	„ „
114. Yg.	Madeira (?)	P. B. Webb, Esq.

Var. MONTICOLA, Blgr.

1. ♀, type	Spain	Madrid Museum.
2. ♀, „	Serra Estrella	Dr. H. Gadow.
3–4. ♀	Sierra de Pico, Burbia	„

Var. BREVICEPS, Blgr.

1. ♂, type	Italy ?	Prof. F. S. Monticelli.
2. ♀	Babaplanina, Herzegovina, 4550 f.	Dr. F. Werner.

Var. HORVATHI, Méhely.

1. ♂, type	Jasenak, Croatia	Prof. L. von Méhely.
2–3. ♀	„ „	„
4. ♀	Kapela Range, Croatia	Dr. F. Werner.

Var. CAUCASICA, Méhely.

1. ♂	Armenia	Petrograd Museum.
2–3. ♂	Mt. Fatguss, Vladikaukas, Caucasus	„
4. ♂	Daghestan, Caucasus	Dr. G. Radde.

Var. CHALYBDEA, Eichw.

1–5. ♂, ♀	Ielenovka, L. Gokcha	Petrograd Museum.
6–7. ♀ and yg.	Kavkaz, „	Dr. V. Vávra.
8. ♂	Near Borjom, Gov. Tiflis	M. L. Lantz.
9. ♀	Caucasus	Dr. J. de Bedriaga (Lataste Coll.).
10. ♀	Van, Kurdistan	Lyons Museum.
11–12. ♂, ♀	Mesopotamia	„
13. ♀	Bithynian Olympus, 4850 f.	Dr. F. Werner.

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Var. SAXICOLA, Eversm.

1. ♂	Crimea	Petrograd Museum.
2. ♂	S. Coast of Crimea	Hr. A. Brauner.
3. ♀	Belaja R., affluent of Kuban R., Caucasus	Petrograd Museum.
4–5. Hgr.	Kuban R., Caucasus	„ (Lataste Coll.).
6–8. ♂, ♀	Shuska, E. Karabagh, Caucasus	Petrograd Museum.
9–10. ♂, ♀	Tativ, „ „	„
11. ♀	Migri-Gerusi, Zangesur District, Caucasus	Dr. G. Radde.
12–14. ♂, ♀	Borjom, Gov. Tiflis	M. L. Lantz.
15. ♂	Iasotchka, near Sukhum, Transcaucasia	„
16–20. ♂, ♀ and yg.	Elisabethpol, Transcaucasia	Petrograd Museum.
21. ♂, type of *L. depressa*, var. *modesta*	Trebizond?	Turin Museum.
22. ♂	Erdschias Dagh, Asia Minor	Hr. M. Holtz.
23. ♂	Cilician Taurus	„

Var. PORTSCHINSKII, Kessl.

1. ♀	Elisabethpol, Transcaucasia	Petrograd Museum.

Var. DEFILIPPII, Camer.

1–8. ♂, ♀	Elburz Mts., N. of Teheran	W. T. Blanford, Esq.
9–10. ♂	„ 7000 f.	R. B. Woosnam, Esq.

Var. RUDIS, Bedr.

1. ♀, type	Trebizond?	Dr. J. de Bedriaga.
2. ♀	Tchorok, Caucasus	Dr. G. Radde.

LACERTA CHLOROGASTER, Blgr.

1–2. ♀, types	Enzeli, S. Coast of Caspian Sea, Persia	R. B. Woosnam, Esq.
3–9. ♂, ♀, types	„ „ „	H. N. Rabino, Esq.
10–25. ♂, ♀	Resht, „ „	C. W. de Bois Maclaren, Esq.

LACERTA JACKSONII, Blgr.

1. ♂, type	Mau Ravine, Brit. E. Africa, 7500 f.	Sir F. J. Jackson.
2. ♀	Mt. Ruwenzori, 8500 f.	R. B. Woosnam, Esq.
3–6. ♂	Mt. Elgon, 7000 f.	R. Kemp, Esq.
7–8. ♂, ♀	Kegamaia, E. Africa	H. Turner, Esq.

LACERTA BRANDTI, De Fil.

1–2. ♂, ♀	Rasano, Talisch	Hr. Leder.
3–5. ♂, ♀ and yg.	Salt Lake near Ardebil, Persia	M. L. Lantz.

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Lacerta lævis, Gray.

1. ♀, type . .	— ?	
2–4. ♂, ♀ . .	Damascus	Dr. J. Anderson.
5–15. ♂, ♀ and hgr. . . .	„	M. H. Gadeau de Kerville.
16–17. ♂, ♀ . .	Sidon	Lyons Museum.
18–19. ♂ and hgr.	Beyrut	Dr. J. de Bedriaga (Lataste Coll.).
20–22,23–25. ♂, ♀	Jerusalem	Canon Tristram.
26. ♀ . . .	Dead Sea	„

Lacerta jayakari, Blgr.

1–2. ♂ and yg., types . . .	Muscat, Arabia . . .	Surgeon-Major A. S. G. Jayakar.
3–6. ♂, ♀ and hgr.	„ „	„

Lacerta danfordii, Gthr.

Forma typica.

1–7. ♂, ♀ and hgr., types. .	Zebil Bulghar Dagh, Cilician Taurus	C. G. Danford, Esq.

Var. anatolica, Wern.

1. ♂ . . .	Near Eski Shehir, C. Asia Minor .	Dr. F. Werner.

Var. græca, Bedr.

1. ♂, type . .	Taygetos, Morea	Dr. J. de Bedriaga (Lataste Coll.).
2–3. ♂ . . .	Kambos, Taygetos . . .	Hr. M. Holtz.
4. ♂ . . .	„ „	Hr. L. Müller.
5–6. ♂ . . .	Langhada, „	„
7–9. ♂, ♀ . .	Megali, „	„
10–11. ♂, ♀ . .	Lada, „	„

Lacerta oxycephala, D. & B.

1. ♀ . . .	Dalmatia	Dr. J. de Bedriaga.
2–3. ♂ . . .	Zara, Dalmatia	M. Spada-Novak.
4. ♂ . . .	Curzola Id., Dalmatia . . .	Florence Museum.
5–7. ♂, ♀ . .	„ „	Prof. Kolombatovic.
8. ♂ . . .	Lissa Id.	Hr. L. Müller.
9–10. ♂. . .	„	M. G. de Southoff.
11–12. ♂, ♀ . .	Gelsa, Lesina Id.	Hr. L. Müller.
13. ♂ . . .	Bilak, Herzegovina	„

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14. ♂	Korito, Herzegovina, 3300 f.	Dr. F. Werner.
15. ♀	Trebinje, „	„
16. Yg.	Ljubinje, „	„
17–19. ♂, ♀	Brestica, „ 4000 f.	„
20. ♂	Gacko, „ 3000 f.	„
21–27. ♂, ♀	Babaplanina, Herzegovina	M. G. de Southoff.
28. ♀	Cettinje, Montenegro	Dr. F. Werner.

Lacerta mosorensis, Kolomb.

1–10. ♂, ♀	Biokovo Mt., Dalmatia, 4200 f.	Prof. Kolombatovic.
11. ♀	Dalmatia	Dr. J. de Bedriaga.
12. ♂	Coputne Rundine, Montenegro	Hr. L. Müller.

Lacerta dugesii, M.-Edw.

1. ♂, type of *T. punctata*	Madeira	Prof. T. Bell.
2–4, 5. ♂, ♀	„	Capt. Parry.
6–11. ♂, ♀	„	A. Christy, Esq.
12–15. ♂, ♀	„	J. Macgillivray, Esq.
16–17. ♂	„	W. R. Ogilvie Grant, Esq.
18–24. ♂, ♀	„	M. J. Nicoll, Esq.
25–32, 33. ♂, ♀ and hgr.	„	
34–37. ♂, ♀	Funchal	M. G. de Southoff.
38–40, 41–44. ♂, ♀	Paul, 4000–5000 f.	Hon. C. Baring and W. R. Ogilvie Grant, Esq.
45–47. ♂, ♀	Great Piton	„
48–50. ♂	Porto Santo	„
51–54. ♂, ♀	Great Salvage	„
55–56. ♂	Deserta Grande	W. R. Ogilvie Grant, Esq.
57. ♂	Bugio, S. Deserta	C. F. Blandy, Esq.
58–67. ♂, ♀ and yg.	Graciosa, Azores	W. R. Ogilvie Grant, Esq.
68. ♀	Orotava, Teneriffe	H.M.S. "Challenger."
69. Yg.	Teneriffe.	

Lacerta echinata, Cope.

1. ♂	Gold Coast	J. Morrow Campbell, Esq.
2. ♀	Cameroon	D. G. Rutherford, Esq.
3. ♀	Kribi R., S. Cameroon	G. L. Bates, Esq.

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4–7. ♂, ♀ . . Bitye, S. Cameroon . . . . G. L. Bates, Esq.
8. ♀ . . . Benito R., Spanish Guinea . . . „
9. ♂ . . . Loango . . . . . H. I. Duggan, Esq.
10. ♂ . . . W. Africa.

LACERTA PERSPICILLATA, D. & B.

1–2. ♂ . . . Sta. Cruz, Oran . . . . . Dr. J. Anderson.
3–9. ♂, ♀ and yg. „ „ . . . . . M. F. Lataste (Lataste Coll.).
10–14. ♂, ♀ . Oran. . . . . M. Doumergue.
15–16. ♀ and hgr. „ . . . . . Lord Rothschild and Dr. E. Hartert.
17, 18. ♂, ♀ . Algeria.

ALGIROIDES FITZINGERI, Wiegm.

1. ♂ . . . Latsorbé, Urzulei-Ogliastre Mts., Sardinia, 1080 m. . . . . Sig. G. Meloni.
2–3. ♂, ♀ . . Sassari, Sardinia . . . . . Florence Museum.
4. ♂ . . . Tacquisara, Sardinia . . . . Marquis G. Doria.
5. ♂ . . . Lanusei, „ . . . . M. G. de Southoff.
6–7. ♂, ♀ . . Sardinia . . . . . Baron v. Maltzan.
8, 9–10. ♂, ♀ . „
11. ♂ . . . „ . . . . . Turin Museum (Lataste Coll.).
12. ♀ . . . „ . . . . . M. G. Olive (Lataste Coll.).
13. ♂ . . . Orezza, Corsica . . . . Dr. J. de Bedriaga.
14. ♂ . . . „ „ . . . . . „ (Lataste Coll.).

ALGIROIDES MOREOTICUS, Bibr.

1. ♂ . . . L. Stymphalos, N. Morea . . . Norman Douglass, Esq.
2. ♂ . . . Ruins of Krami, Cephalonia . . . Hr. L. Müller.
3–4. ♂, ♀ . . Cephalonia . . . . . Dr. F. Werner.
5. ♂, type of var. *doriæ* . . . Zante . . . . . Dr. J. de Bedriaga.

ALGIROIDES NIGROPUNCTATUS, D. & B.

1. ♂ . . . Gorizia . . . . . Florence Museum.
2–4, 5–7, 8–9 . . „ . . . . . Dr. E. Schreiber (Lataste Coll.).
10. ♂ . . . Fiume . . . . . Prof. L. v. Méhely.
11. ♂ . . . Veglia Id., Istria . . . . Dr. F. Werner.
12–14. ♂ . . Mosor Mt., near Spalato, Dalmatia . Prof. Kolombatovic.
15. ♂ . . . Corfu . . . . . Sir A. Smith.
16. ♂ . . . „ . . . . . R. Frett, Esq.
17. ♂ . . . „ . . . . . Dr. F. Werner.

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18–21. ♂, ♀ . Corfu . . . . . . Hr. Krause.
22–25. ♂, ♀ . „ . . . . . Hr. A. Mulser.

Algiroides africanus, Blgr.

1. ♂, type . . Entebbe, Uganda . . . . . Mr. E. Degen.
2–11. ♂, ♀ . . Madje, Ituri . . . . . Dr. C. Christy.
12–15. ♂, ♀ . Bitye, S. Cameroon . . . . G. L. Bates, Esq.

Philochortus spinalis, Peters.

1. ♂ . . . Rugdeia Sogheira, Adal, Eritrea . . Marquis O. Antinori.
2–9. ♂, ♀ and yg. Ghinda, Eritrea „ . . . . . Sig. Ragazzi.

Philochortus phillipsii, Blgr.

1–2. ♂ and hgr., types . . . Berbera, Somaliland . . . . E. Lort Phillips, Esq.

Philochortus neumanni, Matschie.

1–2. ♀ and hgr. . Lahej, near Aden . . . . . Col. Yerbury.
3–5. ♂, ♀ and hgr. Wadis below Mt. Manif, North of Lahej . . . . . A. B. Percival, Esq.

Philochortus intermedius, Blgr.

1–10. ♂, ♀ and yg., types . . Wagga, Goolis Mts., Somaliland, 3000–4000 ft. . . . . G. W. Bury, Esq.
11–29. ♂, ♀ and yg., types . . Inland of Berbera, Somaliland, up to 400 ft. . . . . G. W. Bury, Esq.
30. ♂, type . . Berbera, Somaliland . . . . E. Lort Phillips, Esq.

Philochortus hardeggeri, Stdr.

1–5. ♂, ♀ and yg. Inland of Berbera, Somaliland, up to 400 ft. . . . . G. W. Bury, Esq.
6. ♂, type of *Latastia degeni* . Mandah, Somaliland . . . . Mr. E. Degen.

Latastia johnstonii, Blgr.

1. ♂, type . . Masuka Plateau, Nyassaland, 6000–7000 f. . . . . Sir H. H. Johnston.
2. ♂, type . . Nyika Plateau, Nyassaland, 6000–7000 f. „
3–6. ♂, ♀ . . Morogoro, Tanganyika Territory . . A. Loveridge, Esq.

Latastia burii, Blgr.

1–2. ♂, types . Inland of Berbera, Somaliland, up to 400 ft. . . . . G. W. Bury, Esq.

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Latastia boscæ, Bedr.

1. ♀ . . .	Dolo, Somaliland	Capt. C. Citerni.

Latastia longicaudata, Reuss.

Forma typica.

1–7. ♂, ♀ . .	Durrur, N. of Suakin . . .	Dr. J. Anderson.
8–16. ♂, ♀ and hgr. . . .	Suakin	,,
17. ♂ . . .	Sinkat, ur. Suakin	W. P. Lowe, Esq.
18–19. ♀ . .	Shendi, Egyptian Sudan . . .	Hon. N. C. Rothschild.
20–21. ♂, types of *L. samharica* .	Samhar Coast, Eritrea . . .	W. T. Blanford, Esq.
22. ♀, type of *L. sturti* . .	Komayli Pass, Eritrea	,,
23. Hgr. . .	Between Berbera and Obbia, Somaliland	Sig. L. B. Robecchi.
24. ♂ . . .	Katagum, N. Nigeria . . .	Dr. J. M. Dalziel.

Var. andersonii, Blgr.

1. ♂, type . .	Sheikh Othman, near Aden . .	A. B. Percival, Esq.
2–4. ♂, ♀, types .	El Kubar, S.W. Arabia . . .	G. W. Bury, Esq.

Var. revoili, Vaill.

1. ♂, one of the types of *L. doriæ*	Rugdeia Sogheira, Adal, Eritrea .	Marquis O Antinori.
2–4. ♂ and yg., three of the types of *L. doriæ*, var. *martensi* . . .	Keren, Bogos, Eritrea . . .	Dr. Beccari.
5. ♂ . . .	,, ,, ,, ...	,, (Lataste Coll.).
6. Hgr. . .	Near Abu Ushar, Blue Nile . .	Major S. S. Flower.
7. ♀ . .	Joba, Abyssinia	Mr. E. Degen.
8 9. ♀ . .	Taddeka Mullka, Abyssinia . . .	,,
10. ♀ . . .	S. Abyssinia	Mr. P. C. Zaphiro.
11. ♂ . . .	Berbera, Somaliland	E. Lort Phillips, Esq.
12–14, 15–19. ♂, ♀ and yg. . .	,, ,, ...	G. W. Bury, Esq.
20. ♂ . . .	Inland of Berbera	E. Lort Phillips, Esq.

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21–26. ♂, ♀ and yg. . . . Wagga, Goolis Mts., near Berbera, 3000–4000 f. . . . . G. W. Bury, Esq.
27–28. ♂, ♀ . . Mandah, Somaliland . . . . Mr. E. Degen.
29. ♂ . . . Zaila, „ . . . . Capt. C. G. Nurse.
30. Hgr. . . Lugh, „ . . . . Capt. Bottego.
31. ♂ . . . „ „ . . . . Sig. Ferrandi.
32. ♂ . . . Between Shebeli and Juba Rivers . Dr. Donaldson Smith.
33. ♀ . . . Takanugu, Coast of B.E. Africa . . A. B. Percival, Esq.
34–35. ♂ . . Steppes N. of Fuladya, Kenia district, B.E.A. . . . . Prof. J. W. Gregory.
36. Yg. . . . Njempo Mdogo, B.E.A. . . . . S. E. Betton, Esq.
37. Hgr. . . Lake Stephanie . . . . . Dr. Donaldson Smith.
38. ♀ . . . Dodoma, Tanganyika Terr. . . . A. Loveridge, Esq.

Latastia carinata, Peters.

1. ♂. . . . Berbera, Somaliland . . . . E. Lort Phillips, Esq.

Latastia cappadocica, Wern.

1. ♂ . . . Adana, Asia Minor . . . . Dr. F. Werner.
2–3. ♂, ♀ . . Hassan Gassi, Asia Minor . . . Prof. L. von Méhely.
4. Yg. . . . Kaisarieh, „ . . . . C. G. Danford, Esq.
5. Yg . . . Dumbalagh Dagh, Cilician Taurus, 2000 m. . . . . Dr. F. Werner.

Acanthodactylus vulgaris, D. & B.

Forma typica.

1–9. ♂, ♀ and yg. Valencia, Spain . . . . . Prof. E. Boscá.
10–11. Hgr. . . „ „ . . . . . „ (Lataste Coll.).
12–13. ♂ and yg. . Dehesa de Albufera, Valencia . . Prof. E. Boscá (Lataste Coll.).
14, 15–17. ♂ and yg. . . . Tabernas de Valldigna, Spain . . Lord Lilford.
18. ♂ . . . Ciudad Real, Spain . . . . Prof. E. Boscá (Lataste Coll.).
19. ♂ . . . Don Benito, Badajos, Spain . . . Prof. E. Boscá (Lataste Coll.).
20. Yg. . . . Abrantes, Portugal . . . . Dr. H. Gadow.

Var. belli, Gray.

1. ♂ . . . Sebdou, Prov. Oran . . . . M. Doumergue.
2–3. ♂ . . . Sersou Plateau, „ . . . . M. Letourneux (Lataste Coll.).

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4. ♀ . . . Wed Sedeur, between Laghouat and Djelfa . . . . . M. F. Lataste (Lataste Coll.).
5–6. Yg., types . Algiers.
7–9. ♀ and yg. . Hussein Dey, near Algiers . . . M. F. Lataste (Lataste Coll.).
10–13. ♀ . . Maffray, near Bona . . . . M. F. Lataste (Lataste Coll.).
14. ♂ . . . Setif, Prov. Constantine . . . M. F. Lataste (Lataste Coll.).
15 ♀ . . . Bordj bou Arrerij, Constantine . . M. F. Lataste.
16. ♂ . . . Rorfa des Beni Salam, nr. Aumale . „
17. Hgr. . . Wed Okris, nr. Aumale . . . . „ (Lataste Coll.).
18, 19. ♂, ♀ . Algeria.

Var. MAURITANICUS, Doumergue.

1–2. ♀, types . Oran . . . . . M. Doumergue.
3. ♂ . . . St. Denis le Sig, near Oran . . M. F. Lataste (Lataste Coll.).
4 9. ♂, hgr. and yg. . . . Sta. Cruz, near Oran . . . Dr. J. Anderson.
10 11. ♀ . . Daya, Prov. Oran . . . . M. Doumergue.
12 13. ♂, ♀ . . La Senia, „ . . . . „
14. ♀ . . . Kralfalla, „ . . . . „
15 ♂ . . . Guelt-es-Stel, C. Plateaux of Algeria . Dr. K. Jordan.
16, 17. ♂, ♀ . . Algeria.

Var. BLANCI, Doumergue.

1–3. ♂ and yg., types . . . Tunis . . . . . M. Doumergue.
4 7. ♂, ♀ . . Nabeul, near Cape Bon, Tunisia . . M. M. Blanc.

Var. LINEOMACULATUS, D. & B.

1 5 ♂, ♀ . . Tangier . . . . . M. H. Vaucher.
6 7. Hgr. and yg. „ . . . . . „ (Lataste Coll.).
8. ♂ . . . „ . . . . . Mr. L. Fraser.
9. Yg. . . . „ . . . . . Prof. G. B. Howes.
10. ♂ . . . „ . . . . . Brussels Mus. (Lataste Coll.).
11–22. ♂, ♀ and yg. . . . Mogador . . . . . M. de la Escalera.
23 24. ♂, ♀ . . City of Morocco . . . . Hr. Richter.

ACANTHODACTYLUS BOUETI, Chaban.

1. ♀, one of the types . . . Dahomey . . . . . M. Bouet.

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Acanthodactylus tristrami, Gthr.

1. ♀, type	Lebanon	Canon Tristram.
2. ♂	Between Kefr Hawar and Artuz, Lebanon	Dr. J. Anderson.
3. ♀	Between Baalbek and Shtora, Lebanon	,,
4, 5–7. ♂, ♀	N.E. Slope of Mt. Hermon, Anti-Lebanon	,,

Acanthodactylus savignyi, Aud.

1–13. ♂, ♀ and yg., types of var. *oranensis*	Oran	M. Doumergue.
14–15. ♀ and yg.	,,	Lord Rothschild and Dr. E. Hartert.

Acanthodactylus pardalis, Licht.

Forma typica.

1–9. ♂, ♀	Alexandria	M. Letourneux (Lataste Coll.).
10–22. ♂, ♀	Maryut district, Egypt	Dr. J. Anderson.
23–26. ♂, ♀	Jerusalem	Canon Tristram.
27–28. ♂	Beersheba	,,

Var. bedriagæ, Lataste.

1. ♂, type	Sersou Plateau, Prov. Oran	M. Letourneux (Lataste Coll.).
2. ♂, type	Batna	M. F. Lataste.
3. Hgr., type.	,,	,, (Lataste Coll.).
4. ♂, type	El Guerah	M. F. Lataste.
5–8. ♂, ♀, types	,,	,, (Lataste Coll.).
9–11. ♂, ♀	Setif	M. F. Lataste (Lataste Coll.).
12–14. ♂	Aures Mts., N. of Biskra	Dr. J. Anderson.
15. ♂	Algeria	M. F. Lataste (Lataste Coll.).
16, 17. ♂, ♀	,,	
18–19. ♂	Tamesmida, Tunisia	M. F. Lataste (Lataste Coll.).

Var. maculatus, Gray.

1. Hgr., type	Tripoli	J. Ritchie, Esq.
2. ♂	Misurata, Tripoli	Sig. Andreini.
3–7. ♂, ♀	Duirat, S. Tunisia	Dr. J. Anderson.

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8–9. ♂, ♀	Cabes, Tunisia	Dr. J. de Bedriaga.
10. ♂	„ „	M. F. Lataste (Lataste Coll.).
11. ♂	Mettamer, Tunisia	M. F. Lataste (Lataste Coll.).
12. ♀	Bir el Ahmar, Tunisia	M. F. Lataste (Lataste Coll.).
13. ♂	S. of Gafsa, „	O. V. Aplin, Esq.
14. Yg.	Susa, Tunisia	Mr. L. Fraser.
15. ♂	El Kreder, Prov. Oran	M. F. Lataste (Lataste Coll.).
16–18. ♀	Mecheria, „	M. Doumergue.
19. ♂	Kralfalla, „	„

Var. LATASTII, Blgr.

1. ♀	Tripoli	J. Ritchie, Esq.
2. ♂	El Hammam of Tozeur, Tunisia	M. F. Lataste (Lataste Coll.).
3. ♂	Feriana, Tunisia	M. F. Lataste (Lataste Coll.).
4. ♀	Wed Sedeur, Algeria	M. F. Lataste (Lataste Coll.).
5 6. ♂	Wed Dermel, „	M. F. Lataste.
7–11. ♂, ♀	„ „	„ (Lataste Coll.).
12. ♀	Mzab	M. F. Lataste (Lataste Coll.).
13 24. ♂, ♀	Near Biskra	W. J. Harding King, Esq.
25–27. ♂, ♀	„	M. F. Lataste (Lataste Coll.).
28–33. ♂, ♀	Between Biskra and Tuggurt	M. F. Lataste (Lataste Coll.).
34. ♂	Between Biskra and Laghouat	M. F. Lataste.
35–37. ♀	„ „	„ (Lataste Coll.).
38. Hgr., type of *Z. deserti*	Oasis of Ngoussa	Canon Tristram.
39–45. ♀	Bou Saada	M. F. Lataste.
46–49. ♂, ♀	„	„ (Lataste Coll.).
50. ♂	Bou Guelfaia	M. F. Lataste (Lataste Coll.).
51 52. ♀	Between Tilremt and Laghouat	M. F. Lataste (Lataste Coll.).
53 54. ♂, ♀	Laghouat	M. F. Lataste.
55 57. ♂, ♀	„	„ (Lataste Coll.).

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58. ♀ . . . Ghardaia . . . . . M. F. Lataste (Lataste Coll.).
59–62. ♂, ♀ . . Between Wargla and El Golea . . Dr. E. Hartert.
63–64. ♀ . . Between Wed Nça and El Alia . . „

Var. SPINICAUDA, Doumergue.

1–11. ♂, ♀, types. Arba Tahtani, Prov. Oran . . . M. Doumergue.

ACANTHODACTYLUS MICROPHOLIS, Blanf.

1–2. ♂, ♀, types . Magas, Baluchistan . . . . W. T. Blanford, Esq.
3. ♀, type . . Bampur, „ . . . . „
4. ♂ „ . . Rigan, Narmashir, S.E. Persia . . „

ACANTHODACTYLUS SCHREIBERI, Blgr.

Forma typica.

1–16. ♂, ♀, hgr. and yg. . . Cyprus . . . . . Lord Lilford.
17. ♂ . . . „ . . . . . Sir G. Hampson.

Var. SYRIACUS, Boettg.

1–2. ♀ and hgr. . Beyrut.
3–5. ♂, ♀ . . „ . . . . . Dr. J. de Bedriaga (Lataste Coll.).
6–7. ♂ . . . Syria.

ACANTHODACTYLUS BOSKIANUS, Daud.

Forma typica.

1. ♀ . . . Maryut, Egypt . . . . . Dr. J. Anderson.
2–11. ♂, ♀ and yg. Alexandria . . . . . „
12–21. ♂, ♀ and yg. . . . Ramleh, near Alexandria . . . „
22–25. ♂ and yg. . Abukir . . . . . „
26–27. ♂, ♀ . . Port Said . . . . . M. E. De Betta. (Lataste Coll.).

Var. ASPER, Aud.

1–2. ♂, ♀ . . Basra, Mesopotamia . . . Dr. C. Christy.
3. ♀ . . . Neby Musa, Dead Sea . . . Dr. J. Anderson.
4. ♂ . . . Moses Wells, near Suez . . . „
5–6. ♂ and hgr. . Tor, Sinai . . . . . Dr. A. J. Hayes.
7–11. ♂, ♀ . . Wed Hebron, Mt. Sinai.
12. Yg. . . . Gebel Hammam Farun, Sinaitic Peninsula . . . . . G. W. Murray, Esq.

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13–14. ♂ and hgr.	Sinaitic Peninsula	H. C. Hart, Esq.
15. ♀	Midian, Arabia	Sir R. F. Burton.
16–21. ♂, ♀ and yg.	Aden	Col. Yerbury.
22–30. ♂, ♀ and yg.	Haithalhim, near Aden	„
31. ♂	Lahej, „	A. B. Percival, Esq.
32. ♀	Wadis below Mt. Manif, near Aden	„
33. ♂	Abian Country, S.W. Arabia.	„
34. ♂	El Kubar, Amiri Country, S.W. Arabia	G. W. Bury, Esq.
35–47. ♂, ♀ and yg.	Hadramut, S. Arabia	Dr. J. Anderson.
48–53. ♂ and yg.	Suez	„
54. ♀	Gebel Maryut, N. Egypt	Hon. N. C. Rothschild.
55–58. ♂, ♀ and yg.	Cairo	Dr. W. Innes (Lataste Coll.).
59. Yg.	Heliopolis, near Cairo	Major S. S. Flower.
60–62. ♂ and yg.	Giza, near Cairo	Dr. J. Anderson.
63 64. ♂	Balat, Libyan Desert	W. J. Harding King, Esq.
65–70. ♂, ♀	Tel el Amarna	Dr. J. Anderson.
71–75. ♂, ♀ and yg.	Luxor	„
76. ♂	Assuan	„
77. ♂, type of *S. inæqualis*	Egypt.	
78–79. ♂, ♀	„	A. Paul, Esq.
80–83. ♂, ♀	Khartum	Major S. S. Flower.
84. ♂	Upper Nile	J. Petherick, Esq.
85. ♂	Duem, Egyptian Sudan.	R. M. Hawker, Esq.
86–97. ♂, ♀ and yg.	Suakin	Dr. J. Anderson.
98. ♀	Erkovit, near Suakin	W. P. Lowe, Esq.
99. ♂	Annesley Bay, Eritrea	W. T. Blanford, Esq.
100. ♂	Tunisia	Mr. L. Fraser.
101–104. ♂, ♀	Duirat, Tunisia	Dr. J. Anderson.
105. ♂	Zarzis, „	M. F. Lataste.
106. ♂	Bordj-Bou-Arrerij, Prov. Constantine	„ (Lataste Coll.).
107. ♂	Bou Saada	M. F. Lataste.
108–112. ♀ and yg.	„	„ (Lataste Coll.).
113. ♀	Between Biskra and Laghouat	M. F. Lataste (Lataste Coll.).
114–116. ♂, ♀ and yg.	Laghouat	M. F. Lataste (Lataste Coll.).

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117–119. ♂, ♀ . Tuggurt . . . . . Dr. J. Anderson.
120. Hgr. . . Ghardaia . . . . . M. F. Lataste (Lataste Coll.).
121. ♂ . . . S. of Ghardaia . . . . . Dr. E. Hartert.
122. ♀ . . . Between Wed Nça and El Alia . . ,,
123–125. ♂ . . N.E. of El Golea . . . . . ,,
126. ♂ . . . Between El Golea and Wed Saret . ,,
127–128. ♂ . . N. of El Guettara . . . . . ,,
129–134. ♂, ♀ and yg. . . . Aïn Sefra, Prov. Oran . . . . Lord Rothschild and Dr. E. Hartert.
135–136. ♀ and yg. El Kreder, Prov. Oran . . . . M. Maury (Lataste Coll.).

Var. EUPHRATICUS, Blgr.

1–8. ♂, ♀ and yg., types . . . Ramadieh, Euphrates . . . . Dr. C. L. Boulenger.

ACANTHODACTYLUS CANTORIS, Gthr.

Forma typica.

1–7. ♂, ♀ and yg., types . . . Ramnagar, Agra . . . . . Dr. T. Cantor.
8–12. Yg. . . Hissar . . . . . T. C. Jerdon, Esq.
13–14. ♂ . . Kiruru, Punjab . . . . . Bombay N. H. Soc.
15–24. ♂, ♀ and yg. . . . Karachi . . . . . F. W. Townsend, Esq.
25–27. Yg. . . ,, ... Comm. Shopland.
28–29. ♂ . . Thar District, S. Sind . . . . C. Priestley, Esq.
30–39. ♂, ♀ and yg. . . . Sind . . . . . W. T. Blanford, Esq.
40. ♀ . . . Omara, Mekran Coast . . . . W. D. Cumming, Esq.
41–43. ♂, ♀ . . Between Nushki and the Helmand, Afghanistan . . . . . Dr. Aitchison.
44. ♀ . . . Helmand . . . . . ,,

Var. BLANFORDII, Blgr.

1–2. ♂, ♀, types . Dasht, Baluchistan . . . . W. T. Blanford, Esq.
3. ♀, ,, . Mand, ,, ... ,,
4. ♂, ,, . Bam, S. Persia . . . . . ,,
5–6. ♂, ♀, ,, . Jask, ,, ... S. Butcher, Esq.

Var. ARABICA, Blgr.

1–10. ♂, ♀ and yg., types . . Aden . . . . . Col. Yerbury.
11–12. ♂, types . Lahej, near Aden . . . . A. B. Percival, Esq.

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13. ♂, type	Hills N. of Lahej	A. B. Percival, Esq.
14.	Wadis below Mt. Manif, N. of Lahej	„
15. ♂, types	Abian Hills, near Aden	„
16. Hgr., „	Jimil Valley, „	„
17–24. ♂, ♀, hgr. and yg., types	Hadramut	Dr. J. Anderson.

Acanthodactylus scutellatus, Aud.

Forma typica.

1–3. ♂ and hgr.	Cairo	F. S. Worthington, Esq.
4–5. ♂, ♀	„	Dr. W. Innes (Lataste Coll.).
6–15. ♂, ♀ and hgr.	Giza, near Cairo	Dr. J. Anderson.
16. ♂	Demara, Libyan Desert	Major S. S. Flower.
17–28. ♂, ♀	Wadi Natron, „	Hon. N. C. Rothschild.
29–30. Hgr.	„ „	M. J. Nicoll, Esq.
31–32. ♂, ♀	Fayum	Dr. J. Anderson.
33. ♀	Egypt.	
34–36. ♂	„	M. Letourneux (Lataste Coll.).
37–39. ♂, ♀	Wadi Halfa, Nubia	Dr. J. Anderson.
40–42. ♂, ♀	In Salah, Algerian Sahara	Dr. E. Hartert.
43. ♀	Moses Wells, Suez	Dr. J. Anderson.
44–48. ♂, ♀ and hgr.	Isthmus of Suez, E. of Canal	„
49–50. ♂, ♀	Wed Hebron, Mt. Sinai.	
51–54. ♂, ♀	Jaffa.	
55–57. ♂, ♀	Jerusalem.	

Var. longipes, Blgr.

1–3. ♂, types	Wargla, Algerian Sahara	M. F. Lataste (Lataste Coll.).
4. ♂, type	Wed Nça to El Alia, Algerian Sahara	Dr. E. Hartert.
5. ♂, „	El Wed, E. of Tuggurt, „	W. J. Harding King, Esq.

Var. audouini, Blgr.

1–5. ♂, ♀	Wadi Halfa, Nubia	Dr. J. Anderson.
6–10. ♂, ♀ and yg.	Homs, Tripoli	Capt. A. Andreini.
11–17. ♂, ♀	Duirat, S. Tunisia.	Dr. J. Anderson.
18. ♂	Wed el Kreil, Tunisia	M. F. Lataste (Lataste Coll.).

Var. aureus, Gthr.

1–22. ♂, ♀, types	Rio de Oro, Spanish Sahara	Hr. Riggenbach.

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23–27. ♂, ♀ and yg. . . . Cape Jubi . . . . . Dr. Richter.

Var. INORNATUS, Gray.

1. ♀, type . . Tripoli . . . . . J. Ritchie, Esq.
2. ♂ . . . S. of Gafsa, Tunisia . . . O. V. Aplin, Esq.
3–5. ♂, ♀ . . Bou Saada, Algeria . . . M. F. Lataste
6–17. ♂, ♀ . . „ „ . . . . „ (Lataste Coll.).
18. ♂ . . . Bled Ahmar, Algerian Sahara . . M. F. Lataste.
19–20. ♀ and yg. . „ „ . . „ (Lataste Coll.).
21–23. ♂, ♀ . Laghouat, „ . . M. F. Lataste.
24–26. . . „ „ . . „ (Lataste Coll.).
27. ♂ . . . Between Tibremt and Laghouat, Algerian Sahara . . . . M. F. Lataste (Lataste Coll.).
28. ♀ . . . Tuggurt, Algerian Sahara . . . M. F. Lataste.
29–30. ♂, ♀ . „ „ . . . „ (Lataste Coll.).
31–32. ♀ . . „ „ . . . Dr. J. Anderson.
33. ♀ . . . Mraier, „ . . . M. F. Lataste (Lataste Coll.).
34—36. ♂, ♀ . Wed Nça to El Alia, Algerian Sahara . Dr. E. Hartert.
37. ♂ . . . Guerrara, Algerian Sahara . . . „
38–41. ♂, ♀ . Hadjira, „ . . . M. F. Lataste
42–55. ♂, ♀ . „ „ . . . „ (Lataste Coll.).
56. ♀ . . . Wargla, „ . . . M. F. Lataste.
57. Hgr. . . „ „ . . . „ (Lataste Coll.).
58–61. ♂ . . Between Wargla and El Golea, Algerian Sahara . . . . . Dr. E. Hartert.
62–65. ♂, ♀ . Between El Golea and Fort Miribel, Algerian Sahara . . . . „
66. ♀ . . . Biskra . . . . . Gen. Oudri (Lataste Coll.).
67. ♂ . . . El Wed, Souf. . . . . M. Sédillot (Lataste Coll.).
68–77. ♂, ♀ . Aïn Sefra, Prov. Oran. . . . Lord Rothschild and Dr. E. Hartert.
78–79. ♀ . . „ „ . . . . M. Maury (Lataste Coll.).

Var. DUMERILI, M.-Edw.

1–20. ♂, ♀ and yg. Trarza Country, Mauritania . . . M. Audan.
21–25. ♂, ♀ and yg. . . . Dakar, Senegal . . . . . Baron v. Maltzan.

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26. ♂ . .	Leybar, Senegal	M. F. Lataste (Lataste Coll.).
27–28. Hgr. .	Cape Verd	M. Boucard.

ACANTHODACTYLUS FRASERI, Blgr.

1. ♂, type .	Zobeya, Shariba, Lower Mesopotamia	Capt. F. C. Fraser.

ACANTHODACTYLUS GRANDIS, Blgr.

1–2. ♂, types	Near Khan Ayach, between Damascus and Koutaïfe, Syria . . .	M. H. Gadeau de Kerville.
3. ♀, type .	Near Jerud, Syria	„

GASTROPHOLIS VITTATA, J. G. Fisch.

1–2. ♂, types	Zanzibar	Dr. J. G. Fischer.

BEDRIAGAIA TROPIDOPHOLIS, Blgr.

1. ♂ . . .	Equateur district, Belgian Congo	Congo Museum.

POROMERA FORDII, Hallow.

1–3. ♂, ♀ . .	Batanga, S. Cameroon . . .	G. L. Bates, Esq.
4–5. ♂, ♀ . .	Forest near Kribi, S. Cameroon . .	„
6–15. ♂, ♀ and yg.	Benito R., Spanish Guinea . . .	„
16. ♀ . . .	Lambarene, Ogowe	Miss M. Kingsley.

APELTONOTUS DORSALIS, Stejn.

1. ♀, co-type	Ishigaki Id., Loo Choo Archipelago	U.S. National Museum.

TACHYDROMUS AMURENSIS, Peters.

1–4. ♂, ♀ . .	Chaborovka, Ussuri . . .	Hr. Dörries.
5. ♂ . . .	Seoul, Corea	C. W. Campbell, Esq.
6. ♀ . . .	Corea	M. J. Kalinowski.

TACHYDROMUS TACHYDROMOIDES, Schleg.

1. ♀, one of the types . .	Kiusiu	Leyden Museum.
2–3. ♂, ♀ . .	Nagasaki, Kiusiu	Dr. Richter.
4–6. ♂, ♀ and hgr.	Takamori, „	M. P. Anderson, Esq.
7. ♂ . . .	Moje, „	„
8–9. ♀ and yg., types of *T. holsti*	Osen Mt., Shimabara, Kiusiu . .	Mr. P. A. Holst.
10–11. ♂, ♀ .	Tsu Shima	M. P. Anderson, Esq.
12–16. ♂, ♀ and hgr. . . .	Kochi Ken, Shikoku	„

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17. Yg.	Yokohama, Hondo	Challenger Expedition.
18–20. ♀	Tokyo, „	Dr. F. Hilgendorf.
21. ♂	Shore of L. Hakone, Hondo	Dr. J. Anderson.
22. ♀	Myianoshita, Hondo	„
23. ♀	Koyosun, „	„
24–26. ♂, ♀	Japan	M. Mellottée (Lataste Coll.).

Tachydromus wolteri, J. G. Fisch.

1. ♂, type	Chemulpo, Corea	Hr. Wolter.
2. ♂	Seoul, „	„
3. ♂	Kiu Kiang, China	A. E. Pratt, Esq.
4. (?) ♂	N. China?	Sir E. Belcher.

Tachydromus septentrionalis, Gthr.

1, 2. ♂, ♀, types.	Ningpo.	
3–4. ♂, ♀	„	R. Swinhoe, Esq.
5. ♂	Snowy Valley, Ningpo	J. H. Leach, Esq.
6. Hgr.	Da-laen-saen, S.W. of Ningpo	J. J. Walker, Esq.
7. Hgr.	Nankin	R. Swinhoe, Esq.
8–9. ♀	Shanghai	„
10. ♀	Chusan Id.	J. J. Walker, Esq.
11. Yg.	Chi Kiang, opposite Chusan Id.	„
12. Yg.	Da-zeh Valley, Chi Kiang	P. W. Bassett Smith, Esq.
13 14. ♀ and yg.	Kiu Kiang	F. W. Styan, Esq.
15. ♂	Kiu Kiang Mts.	C. Maries, Esq.
16–32. ♂, ♀ and hgr.	Mountain N. of Kiu Kiang	A. E. Pratt, Esq.
33–37. ♂, ♀	Kuatun, N.W. Fokien	J. D. La Touche, Esq.

Tachydromus formosanus, Blgr.

1. ♀, type	Taiwanfoo, Formosa	Mr. P. A. Holst.
2–5. ♂, ♀, types	C. Formosa	„
6–8. ♀ and hgr.	Punkiho, C. Formosa	Dr. A. Moltrecht.
9. ♂, ♀	Tamsui, Formosa	J. D. La Touche, Esq.
10. ♂, co-type of *T. stejnegeri*	Taipeh, „	California Academy.
11. ♂, co-type of *T. stejnegeri*	Taiman, „	„
12. ♀	Kanshirei, „	„

Tachydromus khasiensis, Blgr.

1–5. ♂, ♀, types	Khasi hills, Assam.	T. C. Jerdon, Esq.

Tachydromus smaragdinus, Blgr.

1–11. ♂, ♀, types	Loo Choo Ids.	H. Pryer, Esq.

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Tachydromus sauteri, Van Denb.

1-2, ♂, ♀, co-types	Cochun, Formosa	California Academy.

Tachydromus sexlineatus, Daud.

1. ♂	Amoy, S. China	J. D. La Touche, Esq.
2-5. ♂, ♀, types of *T. meridionalis*	S. China	J. R. Reeves, Esq.
6. ♂	Man Son Mts., Tonkin	Hr. Fruhstorfer.
7–14. ♂, ♀	Saigon, Cochinchina	M. Holbé (Lataste Coll.).
15. Yg,	Bhamo, Upper Burma	Sig. L. Fea.
16 18. ♀	Rangoon, Burma.	
19 20. ♂, ♀	Bangkok, Siam	Dr. Malcolm Smith.
21. ♀	Malprit, „	„
22. ♂	Jalor, Malay Peninsula.	Dr. N. Annandale and H. C. Robinson, Esq.
23–25, 26–28. ♂, ♀	Great Natuna Id.	C. Hose, Esq.
29–30. ♂, ♀	Matang, Borneo.	
31. ♂	Borneo	Leyden Museum.
32–33. ♂, ♀	„	Sir E. Belcher.
34–35. ♂, ♀	Java	F. W. Christian, Esq.
36–37, 38–39. ♂	„	

Platyplacopus kuehnei, Van Denb.

1. ♂, co-type	Kanshirei, Formosa	California Academy.

Tropidosaura montana, Gray.

1–4. ♂, ♀, types of *T. burchelli*	Cape Colony	Sir A. Smith.
5. ♀	Cape Town	S. African Museum.
6–7. ♂, ♀	Peri Bush, King William's Town	A. W. Stenning, Esq.

Psammodromus blanci, Lataste.

1. ♂, type	Algiers	M. F. Lataste (Lataste Coll.).
2. ♀, „	Lambesa	M. F. Lataste
3–5. ♂, ♀, types	„	„ (Lataste Coll.).
6. ♀	„	Dr. F. Werner.
7. ♂	Tafrent, High Plateaux	M. F. Lataste (Lataste Coll.).
8. ♀	Rorfa des Beni Salam, near Aumale	M. F. Lataste (Lataste Coll.).

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9. ♂	Oran	Basle Museum.
10. ♂	La Senia, Oran	M. F. Lataste (Lataste Coll.).

Psammodromus hispanicus, Fitz.

1–4. ♀	Marseilles	Prof. A. Vayssière.
5–12. ♂, ♀	„	M. M. Blanc (Lataste Coll.).
13–14. ♂, ♀ (*P. cinereus*)	„	M. M. Blanc (Lataste Coll.).
15. ♂	La Crau, Bouches-du-Rhône	W. E. Clarke, Esq.
16. ♀ (*P. cinereus*)	„ „	„
17–18. ♂, ♀	Montpellier	Prof. Duboscq.
19–20. ♂, ♀	„	
21. ♀	Palavas, near Montpellier	M. T. de Rochebrune (Lataste Coll.).
22–23. ♂, ♀	Madrid	Madrid Museum.
24–26. ♂, ♀	Valencia, Spain	Prof. E. Boscá (Lataste Coll.).
27. ♂ (*P. cinereus*)	„ „	Prof. E. Boscá (Lataste Coll.).
28–31. ♂, ♀ (*P. cinereus*)	„ „	Prof. E. Boscá.
32–33. ♂, ♀	Albufera, near Valencia	Lord Lilford.
34–35. ♂, ♀	Ciudad Real	Prof. E. Boscá (Lataste Coll.).
36. ♀	Seville	Dr. H. Gadow.
37–48. ♂, ♀	„	Prof. Calderon.
49–50. ♀	Near Lisbon	H. O. Forbes, Esq.
51. ♀	Algarve	Dr. H. Gadow.

Psammodromus microdactylus, Boettg.

1. ♂, one of the types.	Morocco	Senckenberg Mus. (Lataste Coll.).
2–3, 4–13. ♂, ♀ and yg.	Tangier	M. H. Vaucher.
14–15. ♂, ♀	Mogador	Lieut. Quedenfeldt.

Psammodromus algirus, L.

1. ♂	Neffiez, Hérault	M. Vignier (Lataste Coll.).
2. ♂	Cap Cerbère, Pyrénées-Orientales	O. Thomas and R. I. Pocock, Esqrs.
3. Hgr.	Barcelona	„ „
4–6. ♂	Villa Franca, Leon	E. Britten, Esq.
7. ♀	Madrid	M. V. L. Seoane.

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8–9. ♂, ♀ . .	Huelves	Comm. H. Lynes.
10–11. ♀ and yg. .	Ciudad Real	Prof. E. Boscá (Lataste Coll.).
12. ♀ . . .	Seville	Dr. H. Gadow.
13–16. ♂, ♀ and yg. . . .	„	Prof. Calderon.
17–18. ♂, ♀ . .	Algarve	Dr. H. Gadow.
19–21. ♂, ♀ and yg. . . .	Tangier	M. H. Vaucher.
22–24. ♀ and yg. .	„	„ (Lataste Coll.).
25–28. ♂ and hgr.	Fenzou, Morocco	Hr. Riggenbach.
29. ♂ . . .	Seksawa, „	„
30. ♀ . . .	Rahamna, Atlas of Morocco . . .	„
31–32. ♀ . .	Tamaruth Valley, Atlas of Morocco .	„
33–35. ♂, ♀ . .	Oran	Lord Rothschild and Dr. E. Hartert.
36–38. ♂, ♀ . .	Aïn Sefra, Prov. Oran	„ „
39. Hgr. . .	Misserghin, „	M. F. Lataste (Lataste Coll.).
40. ♀ . . .	Fonnassa, „	M. Maury (Lataste Coll.).
41, 42. ♂, ♀ . .	Algiers.	
43. ♀ . . .	„	M. M. Blanc (Lataste Coll.).
44. ♂ . . .	Hamman Rhira	Lord Rothschild and Dr. E. Hartert.
45–46. ♂ . .	Blida	M. H. Gadeau de Kerville.
47–49. ♂, ♀ and yg. . . .	Guelt-es-Stel, Central Plateaux .	Dr. K. Jordan.
50. ♂ . . .	Aïn Cherchara, Tunisia . . .	M. Letourneux (Lataste Coll.).
51–52. ♂ and yg.	Aïn Drahan, „ . .	M. H. Gadeau de Kerville.
53. ♀, type of var. *doriæ*. . .	Galitone Id., near Galita Id. .	Dr. J. de Bedriaga.
54. ♀ . . .	„	Marquis G. Doria (Lataste Coll.).

Ichnotropis tanganicana, Blgr.

1. ♂, type . .	E. Coast of L. Tanganyika . .	W. H. Nutt, Esq.

Ichnotropis bivittata, Bocage.

1–2. ♂, ♀, types .	Duque de Bragança, Angola .	Prof. Barboza du Bocage.
3–4. ♀ . . .	„ „ .	Dr. W. J. Ansorge.
5 6. ♂ . . .	Bange Ngola, „ . .	„

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7–9. ♂ . .	Between Benguella and Bihé, Angola	Dr. W. J. Ansorge.
10–18. ♂, ♀ . .	Caconda, Angola	„
19–21. ♂ and yg.	Chiyaka district, Angola . . .	„

Ichnotropis capensis, A. Smith.

1. ♂, bad state, type of *T. dumerilii* . . .	Near Latakoo, Bechuanaland . .	Sir A. Smith.
2. Yg. . . .	30 m. N. of Okwa, „ . . .	R. B. Woosnam, Esq.
3–5 ♂, ♀ . .	Mseleni, Zululand	Dr. E. Warren.
6–11. ♂, ♀ . .	Umfulosi Station, Zululand . . .	Mr. C. Grant.
12. ♀ . . .	Vunda, Lower Congo	Col. Cabra, Congo Museum.

Ichnotropis longipes, Blgr.

1–3. ♂, types .	Mazoe, Mashonaland . . .	J. ff. Darling, Esq.
4. ♂ . . .	Bulawayo	Rhodesia Museum.

Ichnotropis squamulosa, Peters.

1, 2–4. ♂ and yg.	Kalahari	Sir A. Smith.
5. ♂ . . .	Molopo R., Bechuanaland . . .	R. B. Woosnam, Esq.
6. ♂ . . .	Kosi Bay, Zululand . . .	Dr. E. Warren.
7. Yg. . . .	Petauke, N.E. Rhodesia . .	S. A. Neave, Esq.
8–9. ♂ . . .	Fort Hill, Nyassaland, 4000 f. .	Sir H. H. Johnston.
10. ♀ . . .	L. Nyassa	B. Thelwall, Esq.

Cabrita leschenaultii, M.-Edw.

1–3. ♂ and hgr. .	Ganjam, Jeypore	Col. Beddome.
4 ♀ . . .	S.E. Berar	„
5–7. Yg. . .	Godavery Valley	W. T. Blanford, Esq.
8. ♀ . . .	Sevagherry	Col. Beddome.
9. ♀ . . .	Foster Hill, Nilgherries . .	W. M. Daly, Esq.
10–15. Hgr. and yg.	Carnatic	Col. Beddome.
16–22. ♂, ♀ and yg. . . .	„	W. T. Blanford, Esq.
23. ♂ . . .	Ceylon	Basle Museum.

Cabrita jerdonii, Beddome.

1. ♂ . . .	Rajpur, Bengal	W. T. Blanford, Esq.
2–3. ♂ . . .	Near Badrachalam, Godavery Valley .	„
4–13. ♂, ♀ and hgr. . . .	Godavery Valley	„
14–17. ♂, types .	Cuddapah, Madras . . .	Col. Beddome.

Ophiops jerdonii, Blyth.

1. ♂ . . .	Quetta, Baluchistan . . .	Mr. J. A. Murray.
2–7. ♂ and hgr.	Alpine Punjab	T. C. Jerdon, Esq.

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8. ♂ . . .	Kotree, Sind	Mr. J. A. Murray.
9–12. ♀, hgr., and yg. . . .	Karachi	,,
13–15. ♀ and hgr.	Cutch	Col. Beddome.
16–21. ♀ and yg. .	Rutnagherry, Bombay . . .	Mr. J. A. Murray.
22 ♂, one of the types of *Calosaura chaperi* .	Bellary, Madras	M. Chaper.
23–42. ♂, ♀ and hgr. . . .	Bellary District	Col. Beddome.
43–51. ♂, ♀, hgr. and yg. . .	Carnatic, Madras	,,

Ophiops beddomii, Jerd.

1. ♀, type . .	Brumagherry Hills, Wynaad .	T. C. Jerdon, Esq.
2–10. ♂, ♀, types of *O. monticola* .	,, ,, .	Col. Beddome.
11–12. ♂ and yg. .	S. Canara	,,

Ophiops occidentalis, Blgr.

1. ♂ . . .	Kralfalla, Prov. Oran . . .	M. Donnergue.
2. ♀, type . .	Portes de Fer, Algiers . . .	M. F. Lataste.
3. ♂ . . .	,, ,, ...	,, (Lataste Coll.).
4. ♂, type . .	Youkous	M. F. Lataste
5–6. ♂, ♀ . .	Tafrent	,, (Lataste Coll.).
7. ♀ . . .	Wed Sedeur	M. F. Lataste (Lataste Coll.).
8–15. ♂, ♀ . .	Batna	Dr. F. Werner.
16–21. ♂, ♀ . .	,, ...	M. F. Lataste (Lataste Coll.).
22. ♂ . . .	Mnila, near Tunis	Marquis G. Doria (Lataste Coll.).
23. ♀, type . .	Hadedj des Matmata, Tunisia .	M. F. Lataste.
24. ♀ . . .	Tamesmida, Tunisia	,, (Lataste Coll.).
25–26. ♂, types .	Susa, Tunisia	Mr. L. Fraser.
27. ♀ . . .	Feriana, Tunisia	M. F. Lataste (Lataste Coll.).
28–29. Yg. . .	S. Tunisia	M. M. Blanc.

Ophiops elegans, Mén.

Forma typica.

1–8. ♂, ♀ . .	Angora	M. H. Gadeau de Kerville.

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9–13. ♂, ♀ . . Kaisarieh, Asia Minor . . . C. G. Danford, Esq.
14. ♀ . . . Albistan, „ . . . . „
15–17. ♂, ♀ . . Giaour Dagh, Asia Minor . . . „

Var. EHRENBERGII, Wiegm.

1. ♂ . . . Constantinople.
2. ♂ . . . Smyrna.
3–5. ♂, ♀ . . „ . . . . . F. Holmwood, Esq.
6. ♀ . . . . „ . . . . . M. H. Gadeau de Kerville.
7. ♀ . . . . „ . . . . . Marquis G. Doria (Lataste Coll.).
8. ♀ . . . Xanthus, Asia Minor . . . C. Fellows, Esq.
9 10, 11. ♂, ♀ and yg. . . . Meander Valley, Asia Minor . . R. MacAndrew, Esq.
12–15. ♂, ♀ . . Zebil Bulgar Dagh, Cilician Taurus . C. G. Danford, Esq.
16–18. ♂, ♀ . . Lebanon . . . . . Dr. J. de Bedriaga (Lataste Coll.).
19. ♀ . . . Brumana, Lebanon . . . M. H. Gadeau de Kerville.
20. ♂ . . . Mt. Hermon . . . . . Canon Tristram.
21. ♂ . . . S. slope of Mt. Hermon . . . Dr. J. Anderson.
22. ♂ . . . Foot of Mt. Tabor . . . . „
23. ♀ . . . Samaria . . . . . „
24 26. ♀ . . Jerusalem . . . . . „
27 28. Hgr. and yg. . . . Galilee . . . . . Canon Tristram.
29 30. ♀ . . Ramadieh, Euphrates . . . Dr. C. L. Boulenger.

Var. PERSICUS, Blgr.

1 3. ♂, ♀ . . Superghan, N.W. Persia . . . R. T. Günther, Esq.
4. ♂ . . . Between Superghan and L. Urmi . „
5–10. ♂, ♀ and yg. . . . Seir, W. of L. Urmi . . . . „
11. ♂ . . . Sujbulak, S. of L. Urmi . . . „
12 14. ♀ and yg. . Kirjawa, E. of „ . . . „
15 17. ♂, ♀ and yg. . . . Arzu Id., L. Urmi . . . . „
18. ♂ . . . Shazalan Id., „ . . . . „
19. ♀ . . . N. of Ispahan, Persia . . . W. T. Blanford, Esq.
20 21. ♀ . . 90 m. S. of Ispahan, 7500 f. . . R. B. Woosnam, Esq.
22 24. ♂ . . 100 m. N.W. of Ispahan, 6000 f. . . „
25–29. ♂ and hgr. Shiraz . . . . . Marquis G. Doria.
30 33. ♂, ♀ . . „ . . . . . „ (Lataste Coll.).

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34. ♂ . . . Niriz, E. of Shiraz . . . . W. T. Blanford, Esq.
35–36. ♀ . . Between Shiraz and Karman . . „
37. ♀ . . . Karman . . . . . „
38. ♀ . . . Kur-i-Hazar, S.E. of Karman . . „
39–40. ♂, ♀ . . Persia . . . . . Turin Museum (Lataste Coll.).
41. ♀ . . . Sharoban, N.E. of Bagdad . . . Dr. C. L. Boulenger.

Var. MIZOLEPIS, Stol.

1–2. Hgr. . . Basra, Mesopotamia . . . . W. T. Blanford, Esq.
3. ♀ . . . Amara, „ . . . . Capt. P. A. Buxton.
4–5. Hgr. . . Felujah-Ramadieh Road, Euphrates . Dr. C. L. Boulenger.
6–11. ♂, ♀ . . Suk esh Shuyuk, Euphrates . . „

Var. SCHLUETERI, Boettg.

1. ♂ . . . L. Phiala, under Mt. Hermon . . Canon Tristram.
2. ♀ . . . N.E. slope of „ . . . Dr. J. Anderson.
3. ♀ . . . Baalbek . . . . . „
4–9. ♂, ♀ . . Lanarka, Cyprus . . . . Sir G. Hampson.
10–24, 25–26, 27. ♂, ♀ . . . Cyprus . . . . . Lord Lilford.
28–29. Hgr. . . „

OPHIOPS MICROLEPIS, Blanf.

1–3. ♂ . . . Cutch . . . . . F. Stoliczka, Esq.
4. ♂ . . . Ajmere, Rajputana . . . W. T. Blanford, Esq.
5–6. ♂ . . . Kurhurbari, Bengal . . . . „

EREMIAS NITIDA, Gthr.

Forma typica.

1–2. Hgr. and yg., types . . . W. Africa.
3. Yg. . . . Nr. Wushishi, Kaduna R., N. Nigeria . Dr. E. Neale.

Var. GARAMBENSIS, Schmidt.

1. ♀ . . . Garamba, Uelle, Belgian Congo . . American Museum.

EREMIAS SPEKII, Gthr.

1–2. ♂, types . E. Africa, between the coast and Unyamwesi, 5° 7′ S. lat. . . . Capt. Speke.
3–4. ♂, ♀ . . Lamu, coast of E. Africa . . . Sir F. J. Jackson.
5–18. ♂, ♀ and yg. Takanugu, „ . . . A. B. Percival, Esq.
19–20. ♀ and hgr. Tanga, E. Africa . . . . Prof. O. Neumann.
21. ♀ . . . Taru, „ . . . . C. S. Betton, Esq.

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22–31. ♂, ♀ . . Morogoro, E. Africa . . . . A. Loveridge, Esq.
32. ♀ . . . Between Sankurar and Amarr, N. of L. Rudolf . . . . . Capt. Bottego.
33. ♂ . . . S. shore of L. Victoria . . . Dr. Emin Pasha.
34. ♀ . . . Ndi, Uganda . . . . . C. S. Betton, Esq.
35. ♂ . . . Boran Country, Gallaland . . . Dr. Donaldson Smith.
36. ♀ . . . W. of Juba R., „ . . . . „
37. ♂ . . . Dolo, Somaliland . . . . Capt. Citerni.
38. ♂ . . . Lugh, „ . . . . . Capt. Bottego.
39. ♂ . . . Berbera, „ . . . . . E. Lort Phillips, Esq.
40–46. ♂, ♀ . . Inland of Berbera . . . . . „

Eremias lugubris, A. Smith.

1–9. ♀ and yg., types . . . Bechuanaland . . . . Sir A. Smith.
10. ♂ . . . Mahalapye, Bechuanaland . . . G. A. Boulenger, Esq.
11–20. ♂, ♀ . . Near L. Ngami, „ . . . R. B. Woosnam, Esq.
21. Hgr. . . Notwanni, nr. Palapye, Limpopo R. . R. J. Cuninghame, Esq.
22. ♂ . . . S. Africa.
23–26. ♂, ♀ and hgr. . . . Konondoto, Mossamedes . . . Dr. W. J. Ansorge.
27–34. ♂, ♀ and yg. . . . Ponang Kuma, „ . . . . „
35–36. ♀ and yg. . Huxe, Benguella . . . . . „
37–38. Yg. . . Kuangu, Angola . . . . . „

Eremias mucronata, Blanf.

1. ♂ . . . Mt. Sinai.
2. ♀ . . . Summit, Red Sea Prov. of Sudan . Major S. S. Flower.
3–12. ♂, ♀ . . Durrur, N. of Suakin . . . . Dr. J. Anderson.
13–22. ♂, ♀ . . Suakin . . . . . „
23. ♂, type . . Anseba Valley, Eritrea . . . W. T. Blanford, Esq.
24. ♂ . . . Walker's Torrent, „ . . . . W. Jesse, Esq.
25–28. ♂ and yg. . Ras Beilul, Assab . . . . Dr. Ragazzi.
29. ♂ . . . Assab . . . . . Marquis G. Doria (Lataste Coll.).
30. ♀ . . . Djibouti, Obok . . . . Dr. Henri Martin.
31. ♀ . . . Obok . . . . . M. Holbé (Lataste Coll.).
32–35. ♂, ♀ . . Mandah, Somaliland . . . Mr. E. Degen.
36. ♀ . . . Berbera, „ . . . . E. Lort Phillips, Esq.
37–40. ♂, ♀ and hgr. . . . Near Berbera, up to 100 m. . . G. W. Bury, Esq.
41–44. ♂ and hgr. Inland of Berbera . . . . E. Lort Phillips, Esq.
45. ♀ . . . Goolis Mts., near Berbera . . . „

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46–47. ♀ . . Zaila, Somaliland . . . . . Capt. G. E. Nurse.
48. ♀ . . . Biji, „ . . . . . Dr. Donaldson Smith.
49. ♂ . . . Between Laffarugh and Aberis, Somaliland . . . . . Capt. Bottego.

Eremias smithii, Blgr.

1. ♂, type . . Milmil, Somaliland . . . . Dr. Donaldson Smith.
2. ♂ . . . Lugh, „ . . . . Capt. Bottego.
3. ♂ . . . Jifa Uri, inland of Zaila, Somaliland . R. M. Hawker, Esq.
4–10. ♂, ♀ and yg. Near Berbera, up to 100 m. . . . G. W. Bury, Esq.

Eremias erythrosticta, Blgr.

1–3. ♂, ♀ and yg. Between Berbera and Obbia, Somaliland Sig. L. B. Robecchi.

Eremias striata, Peters.

1–3. ♂, ♀ and yg. Lugh, Somaliland . . . . . Capt. Bottego.
4. ♂ . . . . „ „ . . . . . Sig. Ferrandi.

Eremias guineensis, Blgr.

1. Yg., type . . Brass, mouths of Niger. . . . Dr. E. Hartert.

Eremias guttulata, Licht.

Forma typica.

1. ♂ . . . Plain of Suez . . . . . Dr. J. Anderson.
2. ♂ . . . Beni Hassan, Egypt . . . . „
3–6. ♂, ♀ . . Luxor, Egypt . . . . . „
7–14. ♂, ♀ . . Ruins of Karnak, Egypt . . . „
15–16. ♂, ♀ . . Ruins of Medinet Habu, Eygpt . . „
17–19. ♂, ♀ and hgr. . . . N. Etbai, Upper Egypt . . . D. MacAlister, Esq.
20. ♂, type of *S. punctata* . . Egypt? . . . . . Berlin Museum.
21. ♂ . . . „ . . . . . „
22–23. ♀ . . Assuan . . . . . Dr. J. Anderson.
24. Hgr. . . Wadi Halfa . . . . . Major S. S. Flower.
25–27. ♀ . . Durrur, N. of Suakin . . . Dr. J. Anderson.
28. ♂ . . . Erkovit Mts., W. of Suakin . . . „
29. ♂ . . . Misurata, Tripoli . . . . Capt. A. Andreini.
30. ♀ . . . Mettamer, Tunisia . . . . M. F. Lataste (Lataste Coll.).
31–32. ♂, ♀ . . S. Tunisia . . . . . M. M. Blanc.
33–37. ♂, ♀ . . Near Biskra, Algeria . . . W. J. Harding King, Esq.
38. ♂ . . . Between Biskra and Tuggurt, Algeria Dr. J. Anderson.

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30. ♀ . . . Tibremt, Algeria . . . . . M. F. Lataste.
46. ♀ . . . Tuggurt, „ . . . . . „ (Lataste Coll.).
41. ♂ . . . Laghouat, „ . . . . . M. F. Lataste (Lataste Coll.),
42. ♀ . . . Mecheria, Prov. Oran . . . . M. Doumergue.
43–47. ♂, ♀ . . Mt. Sinai.
48–49. ♂ . . El Kubar, S. Arabia . . . . G. W. Bury, Esq.
50. ♂ . . . Schaf Ravine, „ . . . . . „
51. ♀ . . . Jimil Valley, „ . . . . A. B. Percival, Esq.
52. ♀ . . . Abian Hills, E. of Aden, S. Arabia . „
53. ♀ . . . Hadramut, S. Arabia . . . . Dr. J. Anderson.
54–58. ♂, ♀ . . Neby Musa, W. of Dead Sea . . „
59. ♂ . . . Beersheba . . . . . Canon Tristram.
60–61. ♀ . . Jerusalem . . . . . „
62. ♀ . . . Askhabad, Transcaspia . . . M. C. Eylandt.
63. ♀ . . . Copet Dagh, near Askhabad . . M. Nazarov.
64. ♂ . . . Puli Hatun, Transcaspia . . . M. C. Eylandt.
65. ♂ . . . Near Teheran . . . . . W.T Blanford, Esq.
66. ♂ . . . Ispahan, Persia . . . . . „
67–68. ♀ . . 40 m. S.W. of Ispahan, 6000 f. . R. B. Woosnam, Esq.
69. ♀ . . . Karman, S.E. Persia . . . W. T. Blanford, Esq.
70, 71. ♀ . . Rayin, N.E. of Karman . . . „
72. ♀ . . . Ras Malan, Baluchistan . . . „
73–74, 75. ♂ and hgr. . . . Gwadar, „ . . . . „
76. ♀ . . . Quetta, „ . . . Col. StJohn.
77. ♀ . . . „ „ . . . . Major C. G. Nurse.
78. ♀ . . . Between Quetta and Nushki, Afghanistan . . . . . Dr. Aitchison.
79. ♀ . . . Tirphul, Afghanistan . . . . „
80. ♀ . . . Helmand, „ . . . . „
81–82. ♀ . . Hyderabad, Sind . . . . Mr. A. J. Murray.
83. ♀ . . . Sind . . . . . Col. Beddome.
84. ♀, type of *E. watsonana* . . „ . . . . . „
85–86. ♂ . . „ . . . . . Mr. J. A. Murray.

Var. OLIVIERI, Aud.

1. ♀ . . . Tor, Sinaitic Peninsula . . . Capt. R. B. S. Sewell.
2. ♂ . . . Sinaitic Peninsula . . . . H. C. Hart, Esq.
3. ♀ . . . Duirat, Tunisia . . . . Dr. J. Anderson.
4. ♂ . . . S. of Gafsa, Tunisia . . . O. V. Aplin, Esq.
5. ♀ . . . Cabes, Tunisia . . . . M. F. Lataste.
6–7. ♂, ♀ . . „ „ . . . . . „ (Lataste Coll.).

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8. ♀	Plateau of Haskaia, Tunisia	M. F. Lataste (Lataste Coll.).
9–10. ♂, ♀	Matmata, Tunisia	M. F. Lataste (Lataste Coll.).
11. ♀	Zarzis, „	M. F. Lataste (Lataste Coll.).
12. ♀	Jerba Id., „	M. F. Lataste (Lataste Coll.).
13. ♀	Biskra	Gen. Oudri (Lataste Coll.).
14–15. ♂, ♀	Near Biskra	H. J. Harding King, Esq.
16–17. ♀	Between Biskra and Laghouat	M. F. Lataste (Lataste Coll.).
18. ♀	Laghouat	M. F. Lataste.
19. ♂	Tuggurt	Dr. J. Anderson.
20. ♀	„	M. F. Lataste (Lataste Coll.).
21. ♀	Wed Dermel	M. F. Lataste (Lataste Coll.).
22. ♂	N'Gaous	M. F. Lataste (Lataste Coll.).
23. ♂	Between El Golea and Fort Miribel	Dr. E. Hartert.
24. ♂	Oran	W. Powell, Esq.
25. ♀	„	Lord Rothschild and Dr. E. Hartert.
26–28. ♂, ♀	La Senia, Oran	M. F. Lataste (Lataste Coll.).
29–30. ♂, ♀, types of *E. guichenoti*	Kralfalla, Prov. Oran	M. Doumergue.
31–32. ♀, types of *E. simoni*	Between Mogador and City of Morocco	Senckenberg Museum.
33–34. ♂, ♀	Shiodma, E. of Mogador	Hr. Riggenbach.
35. ♀	Rio de Oro, Spanish Sahara	„

Var. MARTINI, Blgr.

1. ♀	Mt. Sinai.	
2. ♂	Durrur, N. of Suakin	Dr. J. Anderson.
3. ♂	Akik, S. of Suakin	„
4. ♀	Sheikh Othman, near Aden	Col. Yerbury.

Var. LATASTII, Blgr.

1. ♂, type	Aumale, Algeria	M. F. Lataste.
2–6. ♂, ♀, types	Between Wed Okris and Czars, near Aumale	„ (Lataste Coll.).

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7–8. ♀, type.	. Tiril Ali, near Aumale . . .	. M. F. Lataste (Lataste Coll.).
9–10. ♀, „	. Beni Mansour, near Aumale . .	. M. F. Lataste (Lataste Coll.).
11–12. ♀, „	. Rorfa des Beni Salam, near Aumale	. M. F. Lataste (Lataste Coll.).

Var. SUSANA, Blgr.

1. ♂, type .	. Susa, Tunisia	. Mr. L. Fraser.

Var. BALFOURI, Blanf.

1–4. ♂, ♀, types	. Socotra	. Prof. I. B. Balfour.
5–7. ♂, ♀ .	. Hadibu Plain, Socotra . . .	. Dr. H. O. Forbes and W. R. Ogilvie Grant, Esq.
8. ♂ . .	. Dahamis, „	„
9–10. ♂, ♀ .	. Homhil, „	„
11–12. ♂, ♀	. Jena-Agahan, „	„

EREMIAS ADRAMITANA, Blgr.

1–8. ♂, ♀, types	. Hadramut, S. Arabia . . .	. Dr. J. Anderson.

EREMIAS BREVIROSTRIS, Blanf.

1. ♀ (type) .	. Kalabagh, Punjab. . . .	. W. T. Blanford, Esq.
2. ♀ . .	. Dasht R., Baluchistan . . .	„
3–5. ♀ (types)	. Tumb Id., Persian Gulf . .	„
6–7. ♂ . .	. Near Bushire, Persia . . .	. R. B. Woosnam, Esq.
8–11. ♂, ♀ .	. Jerrahi R., N.W. of Bushire . .	„
12–13. ♂, ♀.	. Tel Jebarah, between Basra and Nasriyeh	. Bombay N.H. Society.
14. ♀ . .	. Faleya, Euphrates.	„
15. ♀ . .	. Felujah–Ramadieh, Euphrates .	. Dr. C. L. Boulenger.
16–17. ♀ .	. Ramadieh „ . .	„
18. ♂ . .	. Jerud Region, Syria . . .	. M. H. Gadeau de Kerville.

EREMIAS RUBROPUNCTATA, Licht.

1–2. ♂, ♀ .	. Mt. Sinai.	
3. ♀ . .	. Sinaitic Peninsula . . .	. H. C. Hart, Esq.
4. Hgr., type of *M. lichtensteinii*	. N. Africa	. Berlin Museum.
5–8. ♂, ♀ and yg., types of *S. nebulosa* . .	. Egypt	. Sir J. Wilkinson.
9–11. ♀ .	. Moses Wells, Suez . . .	. Dr. J. Anderson.
12–16. ♂, ♀	. Oasis of Khargeh, N. Egypt . .	„
17–23. ♂, ♀	. Natron Valley, „ . .	. Hon. N. C. Rothschild.

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24–26. ♂, ♀ . Kafr Gamus, N. Egypt . . . Dr. J. Anderson.
27–30. ♂, ♀ . Giza, near Cairo . . . . . ,,
31, 32–33. ♀ . Heluan, ,, ... ,,
34–36. ♂, ♀ . Tel el Amarna, Egypt . . . . Dr. J. Anderson.
37. ♀ . . . Serir Ben-Afien, Tripoli . . . J. I. S. Whitaker, Esq.
38–41. ♂ . . Between Wed Saret and El Golea, Algerian Sahara . . . . . Dr. E. Hartert.
42–45. ♂, ♀ . Between El Golea and Fort Miribel ,,
46. ♀ . . . N.E. of El Golea, Algerian Sahara . ,,
47–48. ♂ . . Foggaret es Zona, ,, . ,,

Eremias namaquensis, D. & B.

1 2. ♂, ♀ . . Damaraland.
3. ♂ . . . Gamis, Damaraland . . . . R. W. Tucker, Esq.
4–7. ♂, ♀ and yg., types . . . Great Namaqualand . . . . Sir A. Smith.
8. ♂ . . . ,,
9. ♂ . . . Wasserfall, Great Namaqualand . . Hon. P. A. Methuen.
10. ♂ . . . Steinkopf, Little Namaqualand . . Mr. Schlechter.
11. ♂ . . . Namaqualand . . . . . S. African Museum.
12. Hgr. . . Jamesville, Cape Colony . . . Mrs. Leppan.
13–14. ♂, ♀ . Deelfontein, ,, ... Sir A. T. Sloggett.
15. ♀ . . . Port Elizabeth . . . . . F. W. FitzSimons, Esq.
16–18. ♂, ♀ and hgr. E. Districts of Cape Colony . . . J. P. M. Weale, Esq.
19. ♀ . . . S. Africa.

Eremias undata, A. Smith.

1. ♂, type? . . S. Africa . . . . . Lord Derby.
2–4. ♀ . . . Naroep, Little Namaqualand . . Mr. Schlechter.
5. ♀ . . . Between Groendoorn and Wasserfall, Great Namaqualand . . . . Hon. P. A. Methuen.
6–7. ♀ . . . Angra Pequena, Great Namaqualand . Dr. J. G. Fischer.
8. ♂ . . . Nauchas, Damaraland . . . . R. W. Tucker, Esq.
9. ♂ . . . Maconjo, Benguella . . . . Dr. W. J. Ansorge.
10. Hgr. . . Huxe, ,, ... ,,

Eremias benguelensis, Bocage.

1–8. ♂, ♀ and yg. Huxe, Benguella . . . . . Dr. W. J. Ansorge.
9–15. ♂, ♀ and yg. Ponang Kuma, Dongwenna, Benguella ,,

Eremias lineo-ocellata, D. & B.

Forma typica.

1–20. ♂, ♀ and yg. S. Africa . . . . . Sir A. Smith.
21. ♂ . . . . , ... Lord Derby.

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22. ♀	Ababis, Damaraland		R. W. Tucker, Esq.
23. ♂	Naroep, Little Namaqualand		Mr. Schlechter.
24. ♀	Colesburg, Cape Province		F. W. FitzSimons, Esq.
25. ♂	Karoo		S. African Museum.
26–28. ♂, ♀	Kimberley		J. H. Power, Esq.
29–31. ♂, ♀	Enslin, near Kimberley.		„
32. ♀	Riverton, „		„
33–35. ♂, ♀	Gordonia, „		„
36. ♂	Port Elizabeth		F. M. Leslie, Esq.
37–39. ♂, ♀	„		F. W. FitzSimons, Esq.
40. ♀	Natal		S African Museum.
41–42. ♂, ♀	Vredefort Road, Orange River Colony		Capt Barrett-Hamilton.
43–46. ♀	Pretoria.		W. L. Distant, Esq.
47–50. ♂	Barberton, Transvaal.		
51. ♀	Zoutspanberg, Transvaal		J. P. Cregoe, Esq.
52–53. ♀	—?		

Var. PULCHELLA, Gray.

1. ♂, type	S. Africa	Lord Derby.
2. Hgr. „	„	Saffron Walden N.H. Soc.
3. „ type of *E. annulifera*	Interior of S. Africa	Sir A. Smith.
4. ♂, type of *E. pulchra*	„	„
5. ♂, type of *E. formosa*	W. Coast of S. Africa	„
6–9. ♀, hgr. and yg.	Steinkopf, Little Namaqualand	Mr. Schlechter.
10. ♂	Between Groendoorn and Wasserfall, Great Namaqualand	Hon. P. A. Methuen.
11. ♂	Quibis, Great Namaqualand	„
12–13. ♂ and hgr.	Angra Pequena, „	Dr. J. G. Fischer.
14. Hgr.	Aus, Namaqualand	„
15. ♀	Great Namaqualand.	
16. ♀	Jamesville, Cape Colony	Miss Leppan.
17–20. ♂, ♀	Deelfontein, „	Sir A. T. Sloggett.
21. ♂	Eastern districts of Cape Colony	J. P. M. Weale, Esq.

EREMIAS ASPERA, Blg.

1. ♀, type	Mochudi, Bechuanaland	J. Fenton, Esq.

EREMIAS BURCHELLI, D. & B.

1–3. ♂, types	Karoo Flats	Sir A. Smith.
4. ♀	„ ?.	Lord Derby.
5–6. ♂	Eastern districts of Cape Colony	J. P. M. Weale, Esq.

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Eremias capensis, A. Smith.

1. ♂, type ?	S. Africa	Lord Derby.
2–3. ♂	Karoo	Sir A. Smith.
4. ♂, type of *E. laticeps*	Mouth of Orange R.	,,
5. Yg.	Steinkopf, Little Namaqualand	Mr. Schlechter.
6–7. ♂, ♀	Little Namaqualand	,,
8. ♂	Angra Pequena, Great Namaqualand	Dr. J. G. Fischer.
9. ♀	Port Elizabeth	F. W. FitzSimons, Esq.
10–11. ♂	E. districts of Cape Colony	J. P. M. Weale, Esq.
12. ♂	S. Africa.	

Eremias velox, Pall.

Forma typica.

1–10. ♂, ♀ and yg.	European Coast of Caspian Sea	Petrograd Museum (Lataste Coll.).
11. Yg.	Caucasia	Petrograd Museum.
12. Yg.	Mangischlak	,,
13. ♂	N. Alexandrovsk	,,
14. ♀	Puli Hatun, Transcaspia	Mr. C. Eylandt.
15. ♂	W. Turkestan	M. Severzow.
16. ♂	Bokhara	Petrograd Museum.
17–20. ♀ and yg.	Golodnaja Steppes.	,,
21–24. ♂, ♀	Tchincheili R., Kara Kum Desert.	,,
25–26. ♂, ♀	Upper Ili R.	,,
27. ♀	Kasalpai Settlement, Lepsa R.	,,
28–31. ♂, ♀	Tchinas, Syr Daria	,,
32. ♀	Arganatinsk	,,
33–34. ♂ and yg.	Khorgos, Tianshan	,,
35–36. ♀	Ferghana District	,,
37–38. ♂, ♀	Lower Kungess R.	,,
39. ♂	New Guhran, E. Turkestan	Dr. Aitchison.

Var. persica, Blanf.

1–2. ♂, ♀	Kirjawa, E. of L. Urmi	R. T. Günther, Esq.
3. ♂	N. Persia	W.T. Blanford, Esq.
4. ♀	Ghilan, S. of Resht	,,
5–8. ♂	Near Teheran	Marquis G. Doria.
9–10. ♂ and hgr.	,,	,, (Lataste Coll.).
11–12, 13. ♂, types	Near Ispahan	W.T. Blanford, Esq.
14. ♂	20 m. W. of Ispahan, 5500 f.	R. B. Woosnam, Esq.
15–16. ♂	30 m. N.W. of Ispahan, 5500 f.	,,
17–19. ♀ and yg.	100 m. N.W. of Ispahan, 6000 f.	,,
20–21. Yg., types.	Between Shiraz and Karman	W.T. Blanford, Esq.
22. ♂, types.	Karman.	,,
23–24. ♀, types	Rayin, S.E. of Karman.	,,

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25–28. ♂, ♀	Abadeh	Bombay N. H. Society.
29. ♂	Nasirabad, Sistan	Gen. Goldsmid.
30. ♀	Perso-Baluch. Frontier	Sir A. H. McMahon.
31. ♂	Helmand R.	Dr. Aitchison.
32. Yg.	Between Quetta and Nushki	„
33, 34. ♀	Baluchistan	Mr. J. A. Murray.

Eremias fasciata, Blanf.

1–3. ♂, ♀, types	Saidabad, between Shiraz and Karman, Persia	W.T. Blanford, Esq.
4–5. ♂, ♀, types	Sir-I-Tun, S.W. of Karman	„
6. ♂	Kohak, Perso-Baluch. Frontier	Sir A. H. McMahon.
7–8. ♀	Kharan, Baluchistan	Capt. C. Dankes.
9. ♀	Helmand, Afghanistan	Dr. Aitchison.

Eremias vermiculata, Blanf.

1. ♂	Khami Desert, Mongolia	Przewalski Exped.
2. ♂	Ssa-Tschu, Chinese Turkestan	„

Eremias przewalskii, Strauch.

1. ♂	S. Alashan Desert, Mongolia	Przewalski Exped.
2. ♀	Tschirgu-Bulyk, „	„
3. ♀	Khara-Morité, „	„
4–5. Hgr.	Ordos Desert, „	„

Eremias multiocellata, Gthr.

Forma typica.

1. ♀, type	Between Sume and the Tola R., Gobi Desert, Mongolia	J. Brenchley, Esq.
2–5. ♂, ♀	Tian Shan Mts., E. Turkestan	Lord Rothschild.
6. ♂	Near Aksu, E. Turkestan	StG. Littledale, Esq.

Var. yarkandensis, Blanf.

1–3. ♂, ♀, types	Yarkand, E. Turkestan	Yarkand Exped.
4–5. ♂, types	Sarikol, „	„
6–7. ♀, types	Sanju, „	„
8. ♀, types	Kashgar, „	Sir D. Forsyth.
9–17. ♂, ♀ and yg.	Kashgar Steppes, E. Turkestan	Mr. K. Aris.
18–19. ♂, ♀	„ „	Rev. H. Lansdell.
20. ♀	Alashan Desert, Mongolia	Przewalski Exped.

(As one of the types of *E. buechneri*.)

Var. saturata, Blanf.

1–3 ♂, ♀, types	Kuenluen Valleys, S. of Yarkand	Yarkand Exped.

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Eremias intermedia, Strauch

1–2. ♀ and yg., types	Kizil Kum, Aralo-Caspian Desert.	Petrograd Museum.
3–5. ♂, ♀	Perewalnaja, Transcaspia	Dr. G. Radde.
6. ♂	Tedshen, Transcaspia	Warsaw University.
7. ♂	Askhabad, „	Dr. G. Radde.
8–9 ♂	Bal-Kuju, near Askhabad	„
10. ♂, type of *E. nigrocellata*	Feizabad-Mondechi, E. Persia	Petrograd Museum.

Eremias argus, Peters.

Forma typica.

1. ♀	Manchuria	Mr. A. Adams.
2–3. Yg.	Corea	Mr. J. Kalinowski.
4–6. ♀ and hgr.	N.E. Mongolia	C.W. Campbell, Esq.
7–16. ♂, ♀	Chih Fing, N.E. Chihili	A. L. Hall, Esq.
17–19. ♂, ♀	Wei-Hai-Wei, Shanting	Mr. M. P. Anderson.
20–22. ♂, ♀	Pekin	R. Swinhoe, Esq.
23–24. ♀	„	J. Brenchley, Esq.
25. ♀	„	Marquis G. Doria.
26. Yg.	„	Dr. S. W. Bushell.
27–40. ♂, ♀ and yg.	„	Rev. A. David (Lataste Coll.).
41–48.	„	M. Collin de Plancy (Lataste Coll.).
49–53. ♂, ♀	Chefoo	R. Swinhoe, Esq.
54–55. ♂, ♀	„	Mr. M. P. Anderson.
56–62. ♂, ♀	Aisun, 30 m. S. of Chefoo	„
63. ♀	N. China	R. Swinhoe, Esq.
64–65. ♀	„	Mr. A. Adams.

Var. brenchleyi, Gthr.

1. ♀, type	Land of Grass, Mongolia	J. Brenchley, Esq.
2. ♀	Chikiang	Dr. J. G. Fischer.
3. Yg.	Pekin	Rev. A. David (Lataste Coll.).

Eremias arguta, Pall.

1. ♀	St. George, Danube Delta	M. A. Montandon.
2. ♀	Odessa	Petrograd Museum.
3. ♂	Crimea	„
4, 5. ♀	Astrachan	M. Severzov.
6. ♀	Dongus, near Orenburg	Petrograd Museum.
7–9. ♂, ♀	„ „	„ (Lataste Coll.).
10–11. ♂	Kirghiz Steppes	Petrograd Museum.
12–14. ♂, ♀	Baku	„

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15–17. ♂, ♀ . . Baku . . . . . Petrograd Museum (Lataste Coll.).
18. ♂ . . . „ . . . . . Dr. Martin.
19–20. Yg. . . Mangischlak . . . . . Petrograd Museum.
21–22. ♀ . . Novo Alexandrovsk, near Mangischlak „
23. Hgr. . . Transcaucasia . . . . . „
24. ♂ . . . Alexandrovski Fortress, Transcaspia . M. Nazarow.
25. ♀ . . . Tchinas, Syr Daria . . . . Petrograd Museum.
26. ♂ . . . Isbes Khan, N. of Syr Daria. . . „
27–28. ♂ ♀ . . L. Alakul . . . . . Petrograd Museum.
29. Yg. . . . Emba R. . . . . „
30–32. ♂, ♀ and hgr. . . . L. Sassyk Kul . . . . . Geogr. Soc. of Bremen.
33. Yg. . . „ . . . . . Petrograd Museum.
34. ♂ . . . Tarbagatai Mts. . . . . „
35–39. ♂ and yg. . L. Ourkutsch . . . . . M. P. Nazarow.
40. ♀ . . . Tian Shan Mts., E. Turkestan . . Lord Rothschild.
41–43. ♂, ♀ . . Turkestan.

Scaptira knoxii, M.-Edw.

1. ♂ . . . Cape Town . . . . . Mr. De Souza.
2. ♂ . . . Calvinia, Cape Colony . . . Mr. Leipoldt.
3–11. ♂, ♀ . . Port Nolloth, Little Namaqualand . C. Grant, Esq.
12–14. ♀ . . Little Namaqualand . . . Dr. L. Péringuey.
15–18. ♂, ♀, types of *E. fordii* . S. Africa . . . . . Sir A. Smith.
19. ♀, type of *E. fordii* . . . „
20. Yg. . . . „ . . . . . Sir A. Smith.
21. ♂ . . . „

Scaptira suborbitalis, Peters.

1–3. ♂, ♀ and hgr. Little Namaqualand . . . Mr. Schlechter.
4–5. Yg. . . „ . . . Mr. Turle.
7–9. ♂ and hgr. . Naroep, Little Namaqualand . . Mr. Schlechter.
10–12. ♀ and hgr. Steinkopf, „ . . „
13. ♀ . . . Groendoorn, Great Namaqualand . . Hon. P. A. Methuen.
14–15. ♂ . . Aus, „ . . Dr. J. G. Fischer.
16–19, 20–21. ♂, ♀ Angra Pequena, „ . . „
22. ♀ . . . S. Africa . . . . . Lord Derby.
23. Yg. . . . „ . . . . . Sir A. Smith.
24–26. ♂, ♀ . . „

Scaptira ctenodactyla, A. Smith.

1–2. ♂, ♀, types . Great Namaqualand . . . Sir A. Smith.
3. ♂ . . . Little Namaqualand . . . — Scully, Esq.

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4–8. ♂, ♀	Port Nolloth, Little Namaqualand	C. Grant, Esq.
9. ♀	Beaufort West	Rev. G. H. R. Fisk.

Scaptira cuneirostris, Strauch.

1–2. ♂	Damaraland	Mr. W. Anderson.
3. ♂	S. Africa.	

Scaptira lineolata, Nik.

1. ♂, type	Feizabad, E. Persia	Petrograd Museum.
2. ♀	Askhabad, Transcaspia	Warsaw Museum.
3. ♂	Balkujer, near Askhabad	Dr. G. Radde.
4. ♀	Perewalnaja, Transcaspia	„
5. ♂	Tedshen, „	Warsaw Museum.

Scaptira scripta, Strauch.

1–2. ♀	R. Lepsa, Ala Tau	Petrograd Museum.
3. ♀	Copet Dagh, near Askhabad	M. Nazarow.
4. ♂	Baluchistan, near Afghan frontier	Dr. F. P. Maynard.

Scaptira acutirostris, Blgr.

1. Yg., type	Between Nushki and the Helmand, N. Baluchistan	Dr. Aitchison.

Scaptira grammica, Licht.

1. ♂	R. Ili	Petrograd Museum.
2–3. ♀ and yg.	R. Lepsa	„
4. Hgr.	Micheilovo, Transcaspia	Dr. G. Radde.
5. ♂	Molle Kary, „	„
6. ♂	Lower Morgab, „	„

Macmahonia aporosceles, Alc. & Finn.

1–6. ♂, types	W. of Robat I.	Afghan–Baluch. Boundary Comm.

Holaspis guentheri, Gray.

1. ♀, type	— ?	Sir A. Smith.
2–3. ♂ and hgr.	Sierra Leone	Dr. J. G. Fischer.
4. ♀	Oban, Calabar	P. A. Talbot, Esq.
5. ♀	Abo, S. Nigeria	Dr. W. J. Ansorge.
6–8. ♂, ♀	Efulen, Cameroon	G. L. Bates, Esq.
9–13. ♂, ♀ and hgr.	Benito R., Spanish Guinea	„
14–15. ♀	Caconda, Benguella	Dr. W. J. Ansorge.
16. ♀	Zomba, Nyassaland	Sir H. H. Johnston.
17. ♂, type of subsp. *lævis*	Usambara, E. Africa	Dr. F. Werner.

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